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# Information Seeking Habits And Characteristics Of Farm Operators

BASED ON A STUDY CONDUCTED  
IN NORTHEAST MISSOURI



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# Information Seeking Habits And Characteristics Of Farm Operators

HERBERT F. LIONBERGER

## PURPOSE OF STUDY

In nearly every community there are some farm operators who are alert to new developments in farming. They seek new ideas about farming and generally are not content to get them second hand. Consequently, they are likely to get farm information from the county agent and from other institutionalized sources. Others exhibit little interest in new ideas about farming. They seem quite willing to farm in accord with traditional methods and are inclined to accept new practices only when trusted friends and associates have clearly demonstrated their merit.

Educators in charge of adult educational programs are apt to concentrate effort and attention on those who appear willing to learn. Self-survival of the educators tends to dictate this course of action because jobs are provided, promotions made, and appropriations granted on the basis of results shown. This does not mean that they are unaware of or unconcerned with those who fail to seek their services. Nevertheless, when the demand of those willing to learn is sufficient to take most or all of the time and resources available, there is little incentive to divert effort to those who can be reached only with great difficulty and who, when reached, are not able to provide the public support needed for the continued operation of the educational program. Part of the solution to the problem may lie in changes in the relationship of local personnel to the power structure in which educators operate so that the latter will not be penalized for directing attention to people with lesser influence but greater need. However, since such changes are unlikely, educational planning must take cognizance of this power structure and be guided accordingly.

Assuming no basic change will occur in these relationships and in the consequent pressures brought to bear on county agents and other educators, their problem of disseminating farm information becomes one of reaching those who are reluctant to change while continuing to serve those who are anxious to learn. Since those who have changed with reluctance probably have formed different habits of seeking and evaluating farm information than those who have been quick to change, some difference in educational procedure is suggested.

The dissemination and use of scientific farm information is an important function of many educational and service agencies which assist farmers. The vocational agriculture teacher and his staff conduct adult classes and consult with adult farmers about matters related to farming when called upon to do so. Such governmental service agencies as the Soil Conservation Service and the Farmers' Home Administration render educational functions in the administration of their programs. Adequate servicing almost always requires dissemination of scientific farm information. Important as these agencies are in the dissemination of information, it is with the Agricultural Extension Service, and particularly the county agent, that the major responsibility lies. This being true, problems of educational planning may logically be examined from the county extension agent's point of view.

When studied from the county agents' viewpoint, several questions arise:

1. Do those who use county agents and other institutionalized sources of farm information possess characteristics which distinguish them from other farmers in the community?
2. Are the differences, if present, pertinent to the diffusion and use of farm information?
3. What channels of communication are open to and used by farm operators who do not use institutionalized sources of farm information?
4. What reliance may be placed on the competence of alternative sources?

This bulletin considers these questions and gives an interpretation of findings in terms of their significance for educational planning.

### METHOD

The data for this study were obtained during the fall and winter months of 1950 from interviews with 279 farm operators and wives living in a north-east Missouri farming community, from prestige ratings supplied by local judges and data obtained from secondary sources such as organization records and newspaper items.

To orient the treatment of the data to the problems of adult educators, particularly those of the county extension agents, farm operators were divided into the three following groups:

1. Those who obtained farm information from county agents during the year preceding interview, irrespective of other sources.
2. Those who used some institutionalized sources of farm information other than a county agent during that period.
3. Those who used no institutionalized source of farm information during the year.

Included among the institutionalized sources of farm information were the Agricultural Extension Service; the vocational agriculture teacher and his staff; such government agencies as the Farmers' Home Administration,



the Production Marketing Administration (now Agricultural Service Committees) and the Soil Conservation Service; bulletins prepared by land grant colleges and the United States Department of Agriculture; soils and crops meetings; adult farmer classes conducted by the vocational agriculture teaching staff; and meetings of a recurrent nature, in which the dissemination of farm information was a planned objective. Soils and crops meetings were included because they provided direct contacts with county extension agents and with college of agriculture specialists who were called upon to speak at these meetings and consult with the farmers present. Any farm operator using one or more of the above mentioned sources, exclusive of the county extension agent, was classified in the second category, and those who used none were placed in the third category.

On the basis of a direct question concerning the sources from which farm operators obtained farm information, 84 said that they got help from the county agent during the past year, 93 said they obtained farm information from one or more of the institutionalized sources listed above, and 102 failed to recognize help from any of these sources. It is, of course, possible that some who had habitually used the county agent as a source of farm information in times of need did not do so during the survey year and that some who received assistance from institutionalized sources did not recognize or recall same at the time of interview.

With the farm operators so classified, personal data and the use which the operators made of scientific farm information were analyzed to determine whether any of the three groups differed distinctively with respect to factors related to the diffusion of scientific farm information.

### THE LOCAL SETTING

The survey community was composed of approximately 285 full-time farm operators and their families, from whom 279 usable schedules were obtained, and a village center containing 1123 people not considered directly in this study. The community boundaries cut across two northeast Missouri counties in a general farming area where livestock and grain production prevailed as the chief sources of farm income. Corn and soybeans constituted the chief grain crops, while cattle and hog production represented the most important livestock enterprise. The prevailing levels of living were generally above the state average.

Although the survey community cannot be regarded strictly as a random sample, either of the culture core or of the social area of which it is a part, it is roughly representative of a culture core area comprised of Clark, Knox, Lewis, Scotland, and Shelby counties which have been designated by C. L. Gregory as the counties most distinctive, in terms of salient cultural characteristics, of a larger area in northeast Missouri comprising 11 additional counties.<sup>1</sup> (See Figure 1.)

<sup>1</sup>Unpublished manuscript by C. L. Gregory relating to the delineation of social areas in Missouri.

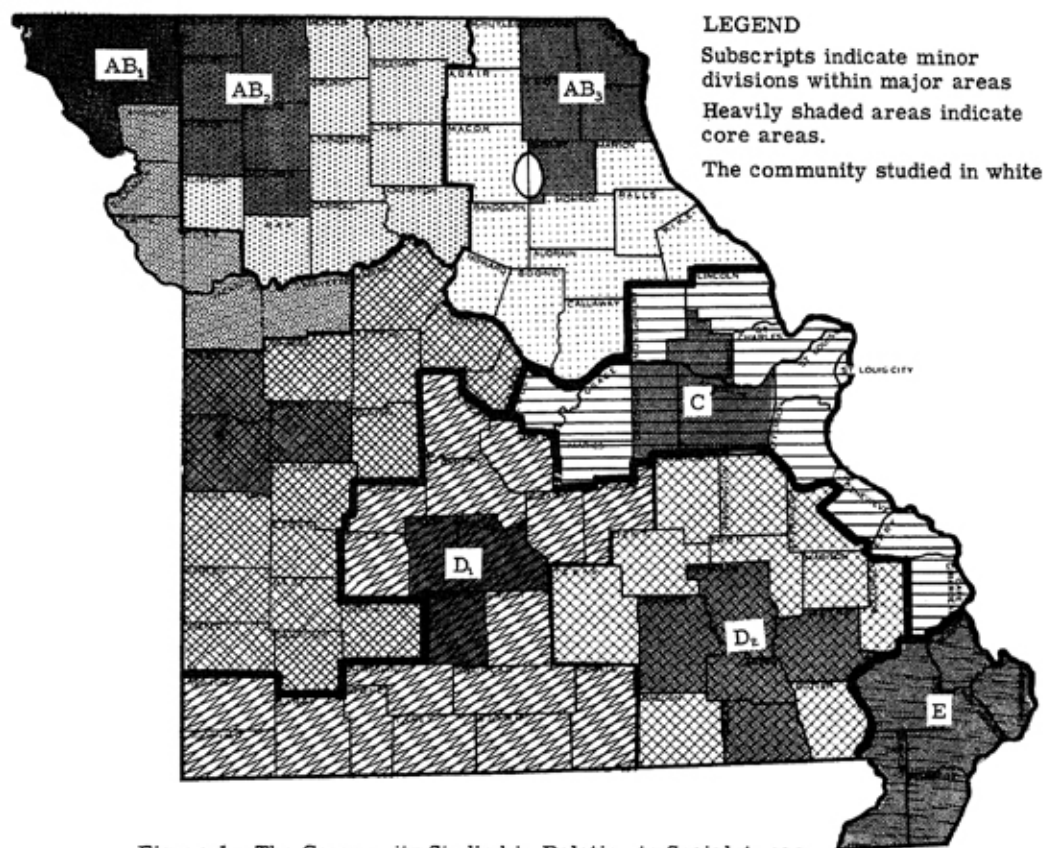


Figure 1. The Community Studied in Relation to Social Areas in Missouri

The Hagood level of living index based upon 1945 census data for the community was 124 compared to 125 for the core counties and 118 for the larger social area of which the core is a part.<sup>2</sup> This index probably represents the best measure of similarity available, inasmuch as it is comprised of a number of cultural variables of proven discriminatory value. The median value of farm products sold off the farms in the community during the survey year was \$3424 compared to a median \$2568 reported for the counties in the core area by the U. S. Census of 1950, and \$2019 for the counties in the entire area. The median size of farm for the community was 212 acres compared to 205 for the core area and 187 for the entire social area. Some of this difference in acreage was probably due to the use of a stricter definition of farm operators in the study than was used by the U. S. Census. The latter included many part-time farmers, usually operating small acreages, who were excluded from this study. In general, differences between the community and the area of which it is a part were in degree and not in kind.

<sup>2</sup>Margaret Hagood, *Farm Operator Level of Living Index for Counties of the United States, 1930, 1940, 1945, and 1950*.

Although there were no distinctive racial or religious elements present in the community, other cultural differences were in evidence. Most noticeable in this respect was an area in which about 50 families resided where average gross incomes were one-third less than the community average and where farming conditions were generally less favorable than elsewhere in the community. (This is henceforth referred to as an *area of relative isolation* as a means of identification.) Farmers here were less inclined to use direct sources of farm information and life generally was more localistically oriented. Nevertheless, from the standpoint of associational patterns, they were very definitely a part of the community and regarded themselves as such. Like other people in the community, adult residents of the area frequented the village center for the services available. Their children attended the local high school. The children in turn, brought their parents to the village center for activities connected with the school.

Residents in the community were well supplied with the conventional means of obtaining farm information. Although division of the community by a county line probably served as a barrier to communication with personnel in county offices, a staff of county agents, an FHA office, and a PMA office were available to all residents in the community. A local SCS office was also available to farm operators residing in one of the counties of which the community is a part.

In addition, a vocational agriculture department with a staff of agricultural teachers who made many contacts with adult members in the community was attached to the local high school. Most of the families subscribed to a local newspaper published at the village center. Two other newspapers to which many subscribed were published in the county seat towns. In addition to these a number of metropolitan papers and farm journals were regularly delivered to local residents. All were within easy range of local and metropolitan radio broadcasting stations, and nearly all of the households had radios in operation.

## GENERAL CHARACTERISTICS OF GROUPS

*Age and Experience.* Age as a characteristic is important from the standpoint of the diffusion and use of farm information. Young farmers seem to be more receptive to change than older farmers. The older farmers may be more likely to have the resources with which to make recommended changes but farm operators who have reached age 60 or beyond are likely to be concerned with problems associated with actual or impending reduction of farm operations or with security matters. Young farmers just getting started are more concerned with other things. Thus, from the standpoint of reaching farm operators with educational materials, it is significant that those who used no institutionalized sources of farm information during the

survey year averaged 12 years older than those who used such sources.<sup>3</sup> (See Figure 2.)

Differences in ages between those who used county extension services and those who used other institutionalized sources of farm information were small. Median ages reported in this case were 44 and 47 years, respectively. The average age for non-users of institutionalized sources, however, was 59 years. Only 7 percent of the non-users of institutionalized sources were under 35 years of age while more than 48 percent were 60 or over. Among those who used the county agent, 27 percent were under 35 years of age compared to only 12 percent who were 60 or over. About 24 percent of the users of other institutionalized sources were under 35 years of age and a little less than one-fifth of them were over 59.

As might be expected from the previous age considerations, non-users of institutionalized sources of farm information had been farming much longer than those who sought the advice of the county agent. Median years of farming for the two groups were 32 and 18, respectively. Users of other institutionalized sources had farmed a median of 22 years. About 17 percent of the non-users of institutionalized sources had been farming less than 10 years compared to nearly one-third of those who had used county extension agents as a source of farm information and one-fifth of the users of other

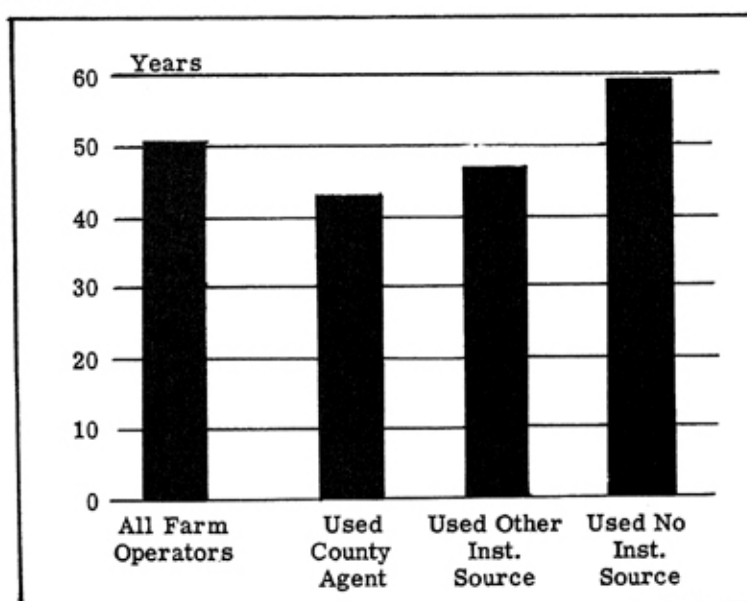


Figure 2. Average Age of Farm Operators by Use Made of Institutionalized Sources of Farm Information

<sup>3</sup>Since these figures and those which follow represent all farmers in the community, differences may be regarded as real. However, tests of significance hereafter presented are predicated upon the assumption that generalization to a larger universe, namely to the core area, is possible.

institutionalized sources. Thus, new-comers to the occupation of farming were much more inclined to use county extension agents and other institutionalized sources of farm information than those who had been farming for many years.

*Residence in the Community.* Although there was some tendency for those who used county extension agent services to be more highly concentrated in the better farming areas of the community, some were found in all areas. Proportions ranged from 25 percent residing in the southwest quadrant of the community to 36 percent in the southeast quadrant where conditions were generally most favorable to farming. The proportion of users of other institutionalized sources ranged from 22 percent in the most isolated section in the northwest quadrant to 38 percent in the northeast quadrant. On the other hand, the proportion of non-users of institutionalized sources ranged from 32 percent in the northeast quadrant to 49 percent in the area of comparative isolation in the northwest quadrant. However, with respect to length of residence, little difference was in evidence among the three groups. Group medians in no case varied by more than 1.5 years from the community average of 31.5 years residence in the community.

*Schooling.* Users of county agent services had completed more years of schooling than the other two groups. The median years completed for them was 10.7, whereas users of other institutionalized sources and non-users of them had attained a median 8.8 and 8.5 years, respectively. Almost one-fourth of the non-users of institutionalized sources had less than 8 years of schooling compared to less than 10 percent for the other two groups. Twenty-two percent of the non-users of institutionalized sources had completed some high school or college training. However, 57 percent of the users of county agent services and two-fifths of the users of other institutionalized sources of farm information had completed 9 or more years schooling.

*Social Orientation.* The social orientation of an individual is reflected in the kind of social groups he affiliates with and the extent and nature of his social participation. Although this applies to both formal and informal groups, it is most characteristic of the former. Informal or primary groups tend to represent the common denominator in group association in that they supply what appears to be a basic and universal desire for friendly and intimate association. Most common among these are the family, neighborhoods, and social cliques.<sup>4</sup> Formal groups are less universally found than informal groups and are more distinctive with respect to quality of membership. Par-

<sup>4</sup>For consideration of social cliques and neighborhoods in relation to the diffusion of farm information, see: Herbert F. Lionberger, "Informal Social Groups as Barriers to the Diffusion of Farm Information in a Northeast Missouri Farming Community" *Rural Sociology* (Sept., 1954). Herbert F. Lionberger and Edward Hassinger, "Neighborhoods as Factors in the Diffusion of Farm Information in a Northeast Farming Community" *Rural Sociology* (Dec., 1954)

ticipation in them tends to be selective with respect to interest and activities directed to the fulfillment of group objectives. Conditions for membership are imposed, officers elected, and programs are planned for the fulfillment of group objectives. Since these groups are the product of social differentiation and specialization in group function, participation in them may be regarded as an index of social orientation. Both kind and amount of participation are important in this respect.

Two qualitative aspects of social participation which the author believed might be related to the diffusion and use of farm information were considered—the degree to which associational patterns were outwardly oriented from the localistic setting and the degree to which social participation was concentrated in groups primarily concerned with the promulgation of secular and dynamic interests, as opposed to the preservation of tradition. Since amount of participation varies with individuals, and since it was assumed that the amount of participation was likely to be related to the diffusion and use of farm information, quantitative measures of participation were also needed. To accomplish this purpose a series of social participation scores, based on kind and quantity of participation in formal groups were introduced and used.<sup>5</sup>

The comparative ratings of users and non-users of institutionalized sources of farm information clearly disclosed that the former were much more active in formal social organizations than the latter. Average formal social participation score for users of county extension agent services was 8.7. For users of non-institutionalized sources the score was 7.6 and for non-users of institutionalized sources, 3.1. (See Figure 3.) This same tendency was clearly evident when membership in specific organizations was considered. (See Table 1.) Even in organizations confined to the immediate locality non-users of institutionalized sources of farm information were far less active than users of institutionalized sources. The average score for non-users was 2.0, while the score for the other two groups was approximately 5.3. Forty-four percent of the non-users of institutionalized sources of farm information reported no participation at all in locally oriented formal groups, whereas less than one-fifth of the other two groups reported no participation of this kind.

Although users of institutionalized sources of farm information were much more active in localistic formal organizations than non-users, differ-

<sup>5</sup>Social participation scores were computed in a manner similar to methods used by F. Stuart Chapin, and later by Donald Hay and others. Credits were assigned for participation of farm operators in formal groups as follows: Membership 1 point; occasional attendance 1 point; regular attendance 2 points; committee membership 3 points; and holding an office 4 points. Individual participation scores were obtained by adding the scores for each organization in which an operator participated. More specific types of social participation scores were obtained by computing scores for participation in formal organizations of localistic, community, and extra community orientation and for participation in church, secular, and administrative or advisory formal groups.



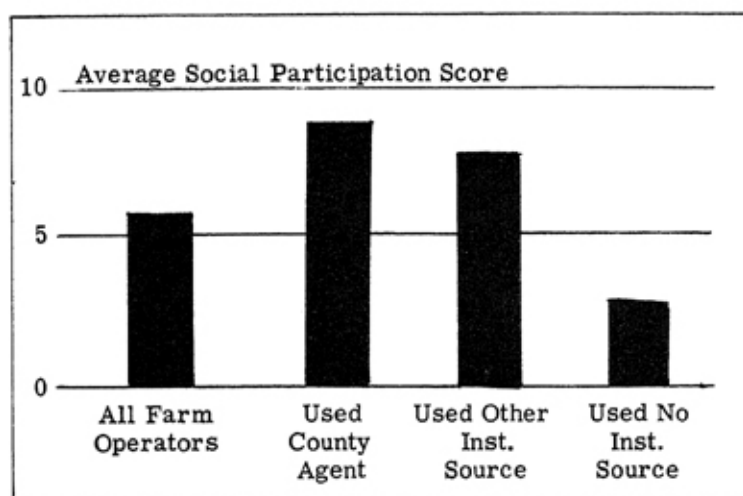


Figure 3. Average Social Participation Score of Farm Operators in Formal Organizations by Use Made of Institutionalized Sources of Farm Information

TABLE 1 -- PERCENT OF FARM OPERATORS REPORTING MEMBERSHIP IN DESIGNATED ORGANIZATIONS CLASSIFIED BY USE MADE OF INSTITUTIONALIZED SOURCES OF FARM INFORMATION

Organization membership	All three groups (N=279)	Users of county agents (N=84)	Users of other institutionalized sources (N=93)	Users of no institutionalized sources (N=102)
	Percent	Percent	Percent	Percent
Church	59.1	66.7	68.8	44.1
Missouri Farmers Association	35.8	40.5	45.2	23.5
Grange	5.0	3.6	8.6	2.9
Parent Teachers Association	18.6	21.4	16.1	18.6
Extension Association	8.2	21.4	3.2	2.0
Adult Farm School	11.5	20.2	16.1	0.0

ences were decidedly greater with respect to participation in formal organizations which took the individual beyond the immediate locality. Less than 29 percent of the non-users of institutionalized sources of farm information participated in a formal organization which drew membership from the entire community while about two-thirds of each of the other two groups took part in such organizations. Average social participation ratings in organizations of community-wide scope were 2.9; 2.8; and 0.7 for users of county agent services, users of other institutionalized sources, and non-users of institutionalized sources, respectively. Ninety-seven percent of the non-user group did not participate in formal organizations which took them beyond the survey community, compared with 92 percent of the users of other institutionalized sources and only 74 percent of those using county agent services. (See Figure 4.) Thus it was that users of institutionalized sources of farm information, particularly those who used county agent services, were

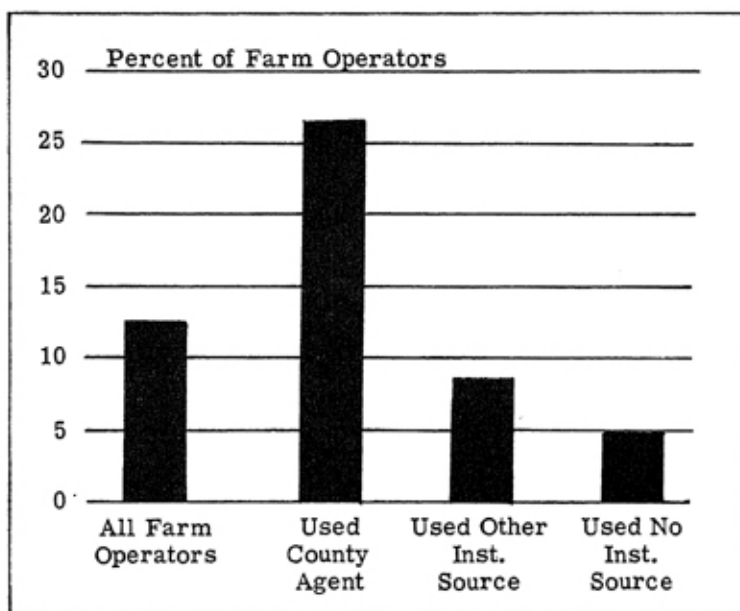


Figure 4. Farm Operators Reporting Some Participation in Extra-Community Formal Social Organizations by Use Made of Institutionalized Sources of Farm Information

not only more localistically oriented socially, but they were much more active in all types of formal social organizations.

The other qualitative difference in social participation used in this study related to association in organizations primarily directed to the preservation of values traditionally held to be essential to the welfare of society (sacred), as opposed to organizations more concerned with the scientific and materialistic (secular) considerations of farm life. Although the sacred classification here used is not to be regarded as synonymous with the church, the church and its related organizations compose the major element included in this classification.

When group participation was tested in this classification, users of institutionalized sources of farm information were far more active in both types of organization than non-users. Median sacred social participation scores for users of county agent services, users of other institutionalized sources, and users of no institutionalized sources were 3.8; 4.1; and 0.9, respectively. Corresponding secular social participation scores were 5.1; 4.6; and 0.9, respectively. Thus users of county agent services were relatively less active in sacred social organizations than in the secular. This inclination is also apparent in the proportion of users of county agent services, and in users of other institutionalized sources, who reported no social participation in sacred and secular organizations. For users of county agent services, the proportion reporting no participation in the sacred organizations was 33



percent compared to 14 percent reporting no participation in secular organizations. For users of other institutionalized sources, corresponding percentages were 31 and 19 and for non-users 56 and 57. There was thus a slight inclination on the part of users of institutionalized sources of farm information to at least some participation in secular organizations in preference to the sacred, which in this study is similar to church participation.

**Technological Competence.** Barring factors which make the adoption of new practices impracticable, technological competence perhaps is best reflected in farm practices actually put to use. In order to arrive at such a measure, each farm operator was questioned concerning his use of 10 comparatively new improved farm practices that were almost universally applicable in the community and the length of time each had been used. (See Table 2 for a listing of these practices.) A composite improved farm prac-

TABLE 2 -- FARM OPERATORS CLASSIFIED BY USE MADE OF INSTITUTIONALIZED SOURCES OF FARM INFORMATION AND BY USE OF DESIGNATED FARM PRACTICES

Farm practice used	All three groups (N=279)	Users of county agents (N=84)	Users of other institutionalized sources (N=93)	Users of no institutionalized sources (N=102)
	Percent	Percent	Percent	Percent
Ladino clover	14.7	29.8	11.8	4.9
Sodium fluoride treatment for worms in hogs	28.7	41.7	32.3	14.7
Recommended variety of soybeans	62.0	61.9	67.7	56.9
Application of commercial fertilizers according to soil test	19.4	45.2	15.1	2.0
Spraying for control of weeds	25.1	33.3	26.9	16.7
Recommended variety of oats	47.0	58.3	58.1	27.5
Terracing or plowing on the contour	21.5	39.3	20.4	7.8
Use of Methoxychlor spray for dairy cattle	5.0	7.1	5.4	2.9

tice score was then prepared by adding credits for use of specific practices and the length of time each had been used. (Although this scale does not represent a highly refined instrument, it has been regarded as sufficiently definitive for the purpose for which it was used.) In cases where the recommended practice was not applicable to the particular farm, compensation in the rating was made for failure to use the practice. The resulting individual scores represent what is referred to here as improved practice ratings.

In every specific farm practice except the use of recommended oat and soybean varieties, the proportion of users of county agent services who had adopted the improved practices was distinctly higher than the proportion

of non-users who had adopted the practices. (See Table 2.) Also, for the control of worms in hogs, more used sodium fluoride treatment, more applied commercial fertilizer according to test, more used nitrate and rock phosphate fertilizer, more had terraced land or were plowing on the contour and more were spraying dairy cattle with methoxychlor than in any of the other groups. It will be observed that in most cases the proportion of operators using institutionalized sources of farm information other than the county agent fell between the upper limit set by users of county agent services and the lower limit set by non-users of institutionalized sources.

Since most of the practices used in this study were comparatively new, great variation by groups in the length of time used could hardly be expected. Even so, users of institutionalized sources of farm information had as a rule used each of these practices longer than those who made no use of institutionalized sources. However, users of institutionalized sources other than a county extension agent sometimes had used practices longer than users of these agents. This was true in the case of the use of new recommended varieties of oats and of terracing or plowing on the contour. However, users of county agent services took the lead for the other practices considered.

Even so, the farm operators who had reported the longest use of each of these practices were much more frequently than not, users of county agents. Only two farm operators in the community had reported the application of commercial fertilizer according to soil test for 5 years or more. Both were users of county agent services. Six reported the use of this practice for as many as 4 years, five of whom were users of county agent services and one claimed he did not use an institutionalized source. Seven farm operators had been using the sodium fluoride treatment for the control of worms in hogs for 5 or more years; four were users of county agent services; two used institutionalized sources other than a county agent, and one who reported he did not use an institutionalized source. Only one operator reported the use of chemical sprays for the control of weeds for as long as four years. Five out of six of those who reported the use of a recommended oat variety for 5 or more years used county agent services and one did not use an institutionalized source. The two using such varieties for more than 5 years were both users of county agent services. Of those plowing on the contour or terracing land for 9 or more years, six used county agent assistance, and two used other institutionalized sources. Five out of 10 operators using one of the new recommended varieties of soybeans for 10 or more years used county agent services; one used other institutionalized sources; and four did not use institutionalized sources. Of the four farm operators who had been growing ladino clover for 3 or more years, two were users of county agent services and one used no institutionalized source. Thus, of the operators mentioned as being among the first to adopt each of these five new practices, 18 were users of county agent services, six were users of other in-

stitutionalized sources, and five reported they did not use an institutionalized source.

Only two of the farmers in the community were mentioned more than once as being among the first five to adopt each of the farm practices. Both were users of county extension agent services and both had attended the college of agriculture.

A composite score which took into account both use and time elements in the adoption of the improved farm practices, and which was previously referred to as an improved practice rating, placed users of county agent services clearly in the number one position with a score of 19.1. Users of institutionalized sources other than a county agent had a median score of 18.8, while those who did not use an institutionalized source had a score of 8.3, thus clearly placing them in a class to themselves. (See Figure 5.)

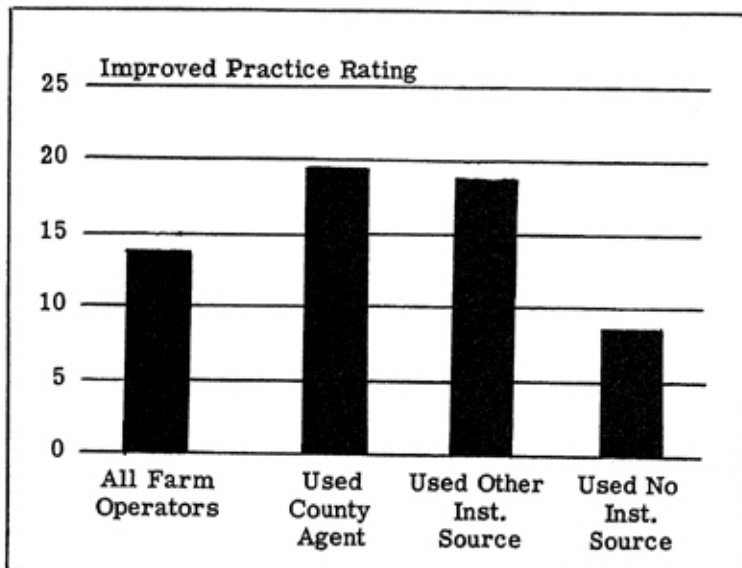


Figure 5. Improved Farm Practice Rating of Farm Operators by Use Made of Institutionalized Sources of Farm Information

*Receptivity to New Ideas About Farming.* The improved farm practices used by a farmer are one good index of his receptivity to new ideas about farming. However, not all of those willing to adopt new farm practices are able to do so. Conditions beyond their control may make it impossible or very difficult to do what they are convinced should be done. For that reason, inferences drawn solely from use of improved practices have a tendency to underrate receptivity to new ideas. A measure somewhat independent of actual practice was obtained during the interview when each farm operator was rated on a five point scale with respect to his apparent receptivity to new ideas about farming. (Although such a procedure is highly subjective in nature, and therefore subject to error, the rating was done

by a staff member of the Department of Rural Sociology after a long period of detailed questioning on circumstances concerning acquisition and use of farm information by each farm operator.) On the basis of this rating, 90 percent of the users of county agent services were regarded as unquestionably receptive to new ideas about farming, among whom 64 percent showed evidence of actively seeking farm information. For users of other institutionalized sources, 28 percent were regarded as actively seeking farm information and 45 percent were decidedly receptive. (See Figure 6.) Only 5 percent of

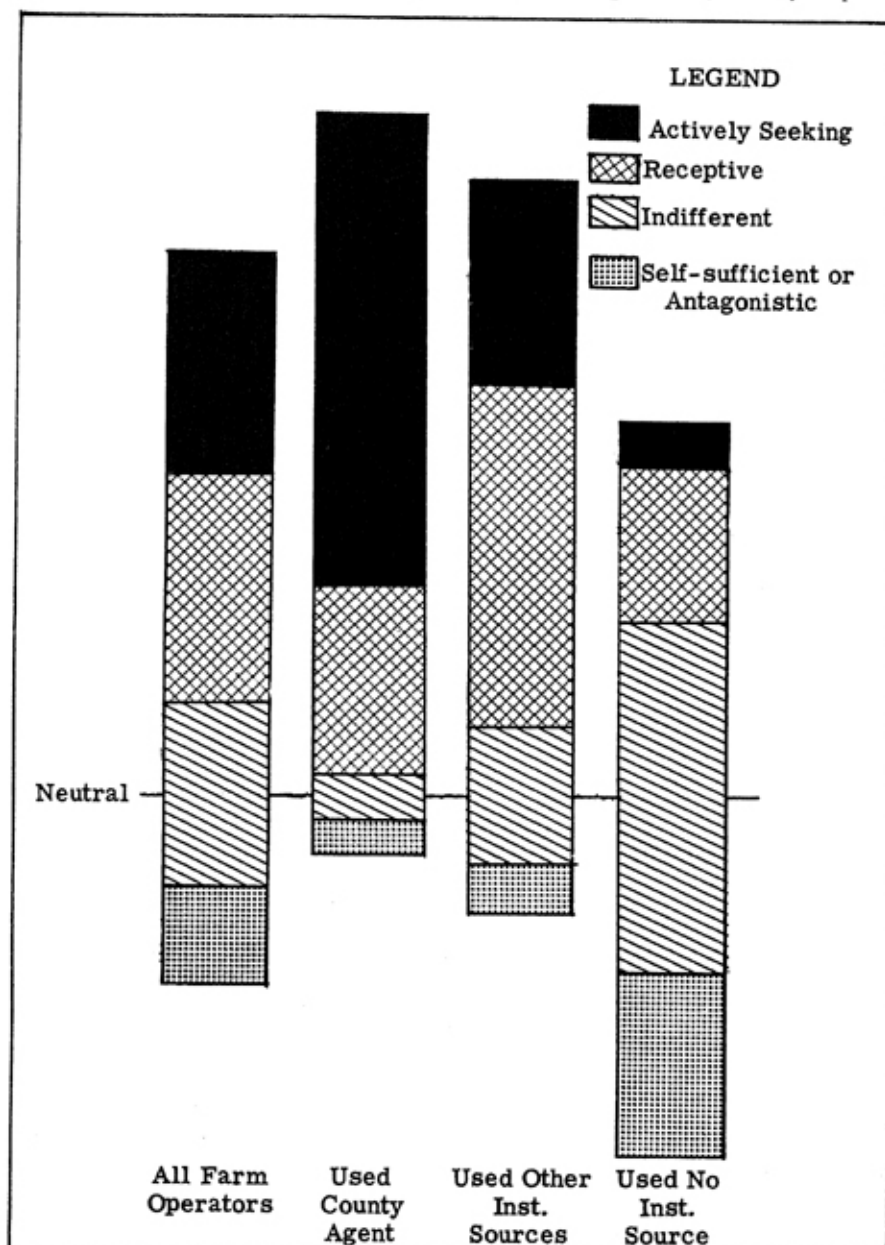


Figure 6. Receptivity of Farm Operators to New Ideas About Farming by Use Made of Institutionalized Sources of Farm Information

the non-users of institutionalized sources gave evidence of actively seeking new ideas and 21 percent showed evidence of receptivity. This left 75 percent of the latter group ranging from moderately indifferent to antagonistic to new ideas about farming.

While it was not always possible to determine the reasons for failure to adopt new farm practices, it was obvious that some of the conditions responsible for this failure were not readily subject to control by the individual. For others, the reasons were essentially psychological in nature. Although an attempt to define specific reasons for failure to accept new farm practices fell short of the desired standard, several recurrent reasons were revealed. By far the most evident were (1) reactions associated with a decline in farm operations and (2) imagined or real lack of funds to put the new practices into operation.

Sixteen percent of the users of county extension agent services indicated that they were reducing their farm operations, compared to 10 percent of the users of other institutionalized sources of farm information and 44 percent of the non-users. Thus, many of the non-users of institutionalized sources probably felt little need for putting new farm practices into use, particularly those requiring extensive revision of existing farm operations. On the other hand, 35 percent of the users of county agent services felt that lack of finance was an important barrier, while only 24 percent of the non-users felt this to be true. A comparable proportion for users of other institutionalized sources of farm information was 34 percent.

Closely related to the feeling that finances were inadequate for the adoption of new practices, was the feeling that practices were too big to be practical insofar as their own farms were concerned. Percentages of those using county agent services, users of other institutionalized sources, and non-users of institutionalized sources who gave evidence of this type of thinking were 7; 10; and 5 percent, respectively. Other barriers that were evident in the thinking of less than 4 percent in any of the three groups were: Lack of time; poor health; feeling of isolation from sources of farm information; and conservatism of owners on tenant operated farms. Approximately 36 percent of both groups using some type of institutionalized farm information gave little or no evidence of the existence of psychological barriers of the type mentioned, compared to 19 percent of the non-users of institutionalized sources of farm information. Thus, psychological barriers to the adoption of farm practices were much less in evidence among users of institutionalized sources of farm information.

### STATUS CHARACTERISTICS OF GROUPS

Status differentials may be based on local standards that establish a person's rank in his own community or on the possession of institutionalized symbols of status set up by society as a whole. Status evaluations based on the latter have been referred to as "mass society" ratings. They are highly

formal and stereotyped in nature and are not influenced by personal achievement. They represent something of a societal consensus of opinion regarding symbols of status, without regard to the particular individual who may be playing the role. Community rank on the other hand is based on a wide variety of factors, including personal achievement, evaluation by the mass society, and organizational status, all of which are evaluated in terms of localistic standards as they apply to a particular individual.

The community prestige ratings used here are of the same type used by other researchers. Status differentials of this type are of particular importance in matters involving interpersonal relations. Such differences often form the basis for the exclusion of certain persons from intimate patterns of association and the inclusion of others.

### Mass Society Status

Data available in this study from which mass society status could be inferred included tenure status, gross farm income, size of farm, subscription to periodical literature, the ownership of selected material possessions, the exercise of administrative power and responsibility in formally organized social groups, and the Sewell socio-economic status ratings. The latter may be regarded as a composite measure of mass society status. Differences reflected by these measures are presented in this section.

*Size of Operations.* Whether size of operations is viewed in terms of acres operated or in terms of volume of business, users of county extension agent services and users of other institutionalized sources of farm information were doing business on a much larger scale than non-users of institutionalized sources. Users of county agent services operated farms averaging about 232 acres in size and users of other institutionalized sources had farms averaging about 234 acres. Non-users of institutionalized sources of farm information operated farms averaging only 164 acres in size.

When viewed in terms of gross farm income derived from these farms, differences were even larger. Those who used county extension agents as sources of farm information reported a median gross farm income of \$4385; users of non-institutionalized sources reported a median gross farm income of \$3969, while non-users of institutionalized sources reported a median of only \$2125. (See Figure 7.) Only 5 percent of the users of county agent services and 18 percent of those who used some other institutionalized source had gross farm incomes less than this figure. Only 19 percent of those who did not use the services of the county agents had gross farm incomes equal to the average reported by those who did.

Size and nature of operations are further reflected in the proportion of farms using tractors. According to this criterion, non-users of institutionalized sources of farm information rated much lower than users. Only 63 percent of them reported ownership of a tractor compared to approximately 90 percent of the other two groups. (See Table 3.) Thus farms of users of

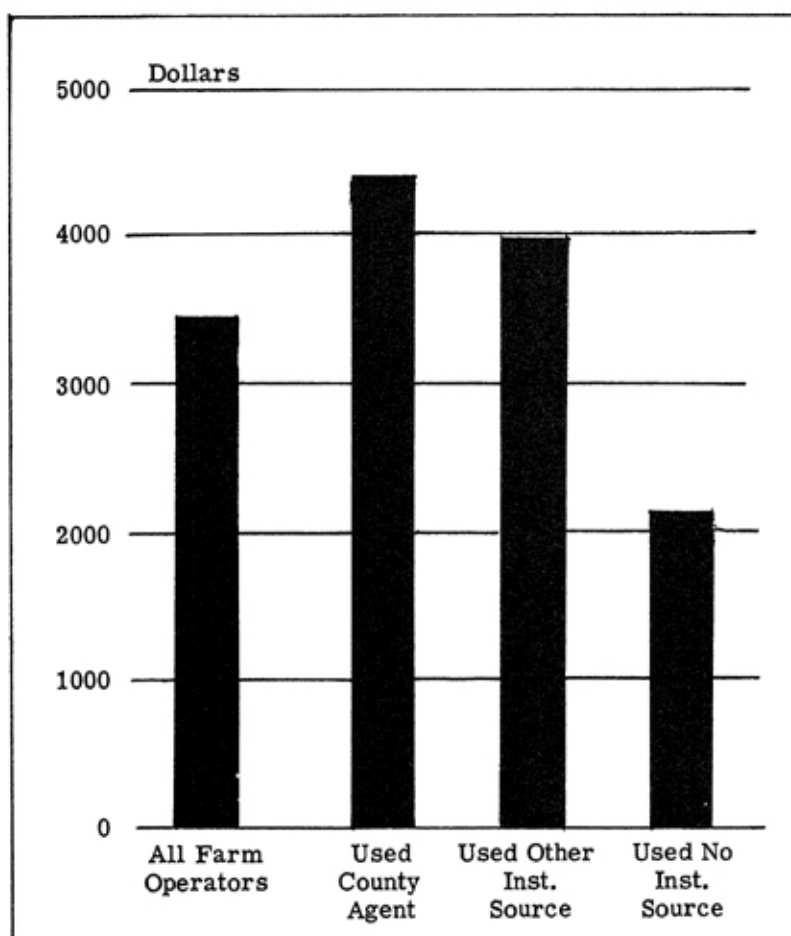


Figure 7. Average Gross Farm Income of Farm Operators by Use Made of Institutionalized Sources of Farm Information

TABLE 3 -- PERCENT OF FARM OPERATORS REPORTING OWNERSHIP OF SPECIFIED FACILITIES CLASSIFIED BY USE MADE OF INSTITUTIONALIZED SOURCES OF FARM INFORMATION

Facility reported	All three groups (N=279)	Users of county agents (N=84)	Users of other institutionalized sources (N=93)	Users of no institutionalized sources (N=102)
	Percent	Percent	Percent	Percent
Tractor	80.0	90.5	89.2	67.7
Electricity in the home	92.5	97.6	94.6	86.3
Running water in the home	25.8	34.5	30.1	14.7
Telephone	88.2	94.0	88.2	83.3
Radio	97.8	98.8	98.9	96.1
Location on all-weather road	72.8	82.1	78.5	59.8



institutionalized sources of farm information, were essentially tractor operated units. Non-users were more likely to rely on horse drawn equipment or the rented services of those who owned tractors and tractor powered equipment.

*Exercise of Administrative and Advisory Responsibility in Formal Social Groups.* Another indicator of mass society status is found in the distribution of positions of prestige and influence in formal social groups. Although status differentials are manifest in the accordance of roles, duties, and privileges in all formal social groups, those specifically constituted for the utilization of administrative and advisory talent occupy a distinctive position in this respect. Election to administrative positions is indicative of both mass society status and the esteem accorded an individual by his fellowmen. By this criterion 27 percent of the users of county agent services were found to have been accorded positions of advisory or administrative responsibility compared to only 12 percent of the non-users of institutionalized sources of farm information. About 22 percent of the users of other institutionalized sources fell in this category, thus making them more like users of county agent services than non-users of institutionalized sources of farm information in this respect.

*Tenure Status.* As was generally true with respect to other attributes indicative of mass society status, users of county agents as sources of farm information were better situated than the other two groups with respect to proportion of them owning their farms. The proportions of those using county agent services, those using other institutionalized sources, and those using none who owned their farms were 85, 80, and 77 percent, respectively.

*Subscription to Periodical Literature.* Subscription to newspapers and magazines often has been regarded as indicative of social status, the assumption being that people with high status are more likely to subscribe to newspapers and magazines than people with lower social status; furthermore, that those with high status are inclined to subscribe to more periodicals than those with lower status. Examination of data regarding such subscriptions again placed users of county agent services in the most favored position, followed in order by users of other institutionalized sources of farm information, and by non-users. The median numbers of magazines to which these three groups of farm operator families subscribed were 4.3, 3.8, and 3.0, respectively. However, differences with respect to the proportions subscribing to local and daily newspapers were too small to be of any importance. Eighty-five percent of the families subscribed to one or more local newspapers and 84 percent subscribed to a daily. None of the three groups varied by as much as 5 percentage points from these averages.

*Possessions and Personal Attributes Symbolic of Status.* Although differences were often small, the proportions of the three groups owning selected conveniences indicative of mass society status generally placed those



using county agent services at the top of the scale and non-users of institutionalized sources of farm information at the bottom. Table 3 shows the proportions of operator households having radios, electricity, and telephones in their homes varied little in any group from the community average. However, over twice as many of the two groups using institutionalized sources of farm information had running water in their homes as non-users of such sources. The first two groups were also better situated with respect to location on all-weather roads.

Another measure of mass society status was provided by Sewell socioeconomic status rating which revealed that users of institutionalized sources of farm information rated higher than non-users.<sup>6</sup> The rating for non-users was 72.3 while the comparable figures for users of county agent services and of other institutionalized sources were 79.6 and 80.4, respectively.

### Community Prestige

To possess attributes indicative of mass society status is one thing. To be held in high esteem by ones' associates is quite another. The latter has a special significance to the diffusion of farm information in that esteem assigned by associates is more likely to influence intimate associational patterns than the mere possession of symbols of mass society status. With this in view, a measure of esteem or prestige was obtained by the use of 16 local judges. These judges rated farm operators with whom they were sufficiently acquainted according to their general standing (prestige) in the community.

Eleven of these judges were farm operators and five were mature sons of farm operators who resided in the community. As is often the case in obtaining ratings of this kind, the judges were disproportionately representative of the middle and upper prestige elements of the community. Here, as in other studies, the opinion of lower status people in the community was under-represented because of a general reluctance on the part of the lower prestige persons to furnish prestige ratings. Thus, the ratings used in this report are based largely on the evaluation which middle and upper class persons placed on others in the community.

In the rating process, each judge was free to select the number of categories used in arriving at his ratings. Positions assigned to each individual by the different raters were converted to standard scores and averaged. The median rating of the scores thus computed was 4.2 on a standard scale ranging from 1.5 at the high end of the continuum to 7.4 at the low end.

On the basis of this measure both users of county agent services and users of other institutionalized sources rated well above non-users. Median ratings for these three groups were 3.9, 4.1, and 4.5, respectively. Fifty-eight percent of the users of county agent services and 43 percent of the users of other institutionalized sources of farm information were rated in the upper

<sup>6</sup>William H. Sewell, "A Short Form of the Farm Family Socio-Economic Status Scale", *Rural Sociology*, VIII: 2 (June, 1943) pp. 161-170.

three prestige categories, compared to 28 percent of the non-users. Conversely, about 36 percent of the non-users of institutionalized sources rated in the three lowest categories, compared to about 16 percent of the other three groups.

## SOURCES OF FARM INFORMATION

### Use of Institutionalized Sources

*County Extension Agents.* Personal contact with agents bore out the assumption that the problem of reaching users and non-users of institutionalized sources of farm information with educational materials was somewhat different. The 84 farm operators who said they obtained information from a county extension agent during the survey year had conferred with an agent one or more times during the year and 79 percent of them said they had attended one or more meetings where an agent was present. Three who claimed to have neither conferred with an agent nor attended a meeting where one was present, nevertheless, had obtained soil tests and literature from him which they considered useful. About 29 percent considered themselves habitual users of county extension agent services.

There was much to indicate that the influence of extension agents extended beyond those who said they got information from them. Almost half of the users of other institutionalized sources of farm information and one-sixth of those who said they did not use any such source attended one or more meetings where an agent was present. Although the extent of the agent's participation in these meetings is not known, the possibility that there were some farmers present who thought what the county extension agent had to offer was of little or no use to them cannot be ruled out. On the other hand, some of those present undoubtedly got assistance that they did not admit. In addition to the 30 percent who had used the county agent during the survey year, a few others had made use of his services in previous years and considered themselves as being habitual users of county agents.

Many others were favorably disposed to the county agent and his work even though they had not used his services. It is, of course, not surprising that 38 percent of the users were very favorably inclined to the extension agent, and that an additional 56 percent regarded his work favorably. Of users of other institutionalized sources of farm information, comparable percentages were 7 and 50, respectively, and for non-users none and 31 percent, respectively. About 70 percent of the latter group tended to be indifferent or unfavorable to the county agent and his work, as were 44 percent of the users of other institutionalized sources of farm information. Although approximately 6 percent of those who received help from the county agent seemed to regard agricultural extension work with indifference, none showed evidence of being unfavorable or antagonistic to the agents.

Some of the indifference that was expressed appeared to be due largely to ignorance of the duties and functions of the agent. This was most in evidence among non-users of agents. Twelve percent of them seemed to be confused concerning the function and purpose of county agents. However, by far the most important reason for indifference among all groups was a feeling that the services of the county agent were not personally needed. The proportion of indifferent persons indicating this as the primary reason for their apparent indifference included five of the six indifferent users of the county agent, 52 percent of the 46 indifferent users of other institutionalized sources, and 52 percent of the 35 indifferent or antagonistic non-users of institutionalized sources. Significantly, a large proportion of these indifferent farm operators felt that the county extension agent was useful to those who needed one, and that they should be retained for that purpose.

*Soil Conservation Service.* Because of the location of county lines, the services of a Soil Conservation Service Office were available to only 236 of the 279 farm operators interviewed. Twenty percent of them said that they got useful information from this source, (17 percent of the entire number). Those who had used the county extension agent, also, most frequently named the SCS as a source of farm information with 45 percent reporting they used it. Only 18 percent of the users of other institutionalized sources used the Soil Conservation Service Office. By definition, none of the non-users of institutionalized sources used this agency.

Since soil conservation is the primary function of the Soil Conservation Service it may be assumed that educational assistance rendered is largely directed to this end. Also since the county extension agent and the local soil conservationist worked in close cooperation with each other it may at times have been difficult to distinguish the services rendered by one from that of the other.

*Production and Marketing Administration.* (Now known as Agricultural Stabilization and Conservation Service.) Although the Production and Marketing Administration Office is not essentially an information disseminating agency, some attention to educational matters is inevitable. In the first place, qualifications for benefit payments under PMA programs require that certain specifications and standards be followed in the completion of projects. In the second place, the county agent and the county PMA chairman ordinarily work in close cooperation with each other, often in the same office building. The PMA chairman is therefore in a position to keep well informed regarding farm practices which are being emphasized in the county agricultural extension program. Since the PMA chairman is usually himself a farmer elected by other farmers, he may be more personally acceptable than the county agent. Therefore, his aid may be more acceptable, particularly to farmers who regard personal acceptability as a prerequisite to the acceptance of advice. The county agent may be regarded as an out-

sider. Also, contacts with the PMA chairman are almost mandatory where a farmer participates in the PMA program, often placing him in a position where he actually tells the farmer what to do. The county agent does not enjoy this advantage.

It is, therefore, not surprising that more farm operators got information from the PMA chairman than from any other institutionalized source. About 54 percent of users of county agents and 51 percent of the users of other institutionalized sources used this agency. Thus the PMA Office had the additional distinction of showing the least variation between the two groups using it as a source.

*Vocational Agriculture Teachers.* Although the vocational agriculture teacher is not primarily concerned with the education of adult farmers, there are many ways in which he may exert his influence on the adult population of the community. Supervision of FFA projects brings him in contact with parents who also attend high school functions, and who come to town where they meet and talk with members of the vocational agriculture teaching staff. Farmers attend adult classes at the community center when they often would not go the distance to the county seat for similar types of meetings, unless the county seat town also happens to be the community center. All of this provides a kind of local accessibility which the county agent ordinarily does not enjoy. The vocational agriculture teacher, therefore, has ample opportunity to become locally known and to become an integral part of life in the community.

The teacher in the survey community had been in charge of the vocational agriculture program for approximately 6 years, and in that capacity had become an accepted member of the community. Having attained status as a community member, his position as an adult educator was greatly enhanced. As such, he was able to speak as a trusted friend and associate, and not merely as an agricultural expert.

Although advising adult farmers was not his major function, one-fifth of the farm operators in the community said they got information from him. Of the two groups using institutionalized sources of information, 38 percent of the users of county agent services, and one-fourth of the users of other institutionalized sources named this teacher as a means of assistance to them.

Closely related, and indeed a part of the vocational agriculture program, was the veterans' farm training program, which tended to further extend the influence of the department. One-fourth of the farm operators said they obtained farm information from adult classes held by the vocational agriculture teaching staff. Proportions for users of county agent services and users of other institutionalized sources were 44 percent and 38 percent, respectively.

*Farm Bulletins.* Although farm bulletins differ from other institutionalized sources of farm information in that they require reading rather than

personal contacts as a means of obtaining information, they have the common characteristic of providing avenues through which farm information may be obtained directly from the College of Agriculture and from the United States Department of Agriculture where much of it originates. In the latter sense they are different from newspapers, magazines, and radio which are usually classed as mass communication media.

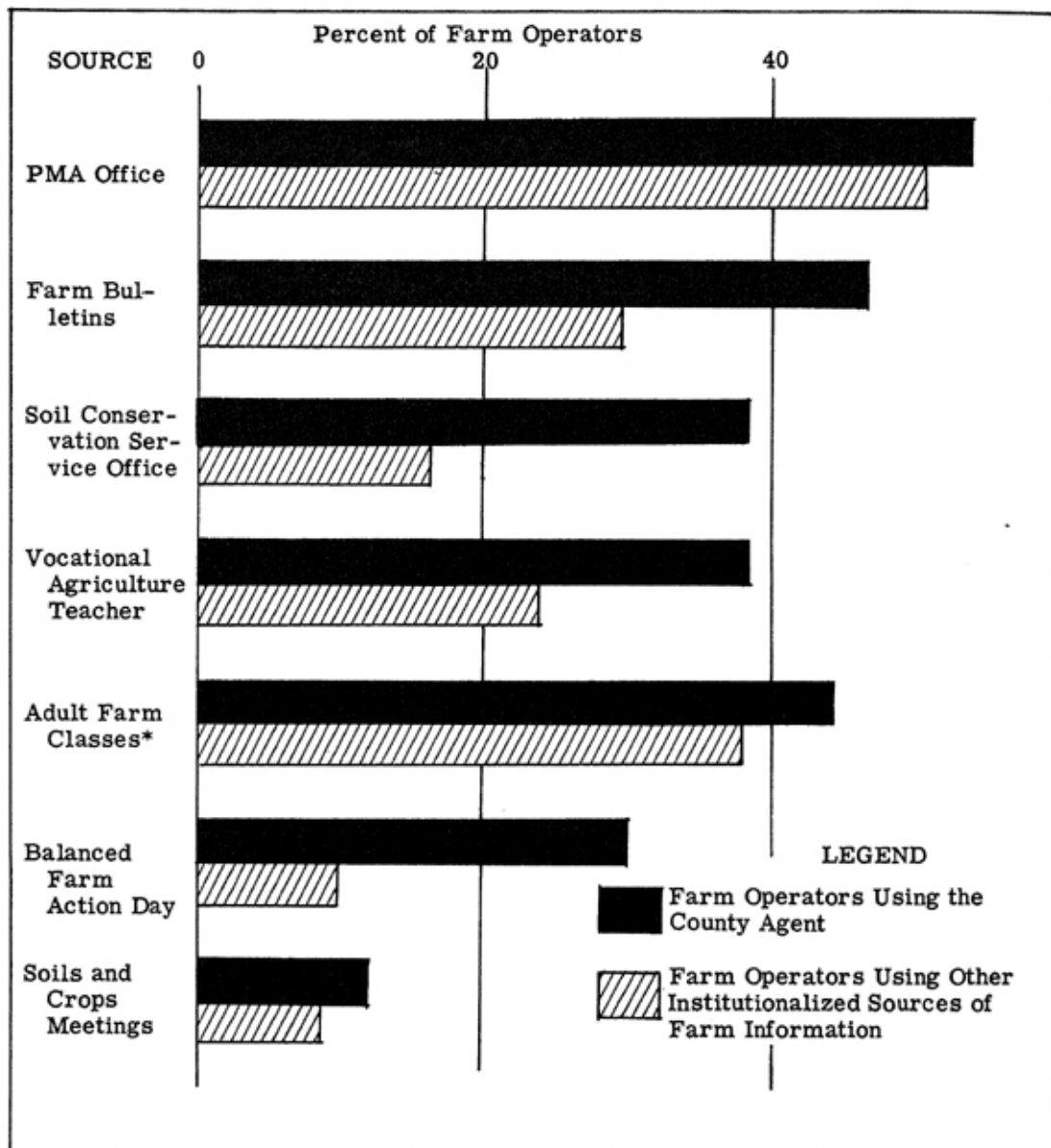
Although bulletins may be had free from the county agent's office, the state College of Agriculture, and from the United States Department of Agriculture, their use requires active effort on the part of the seeker. In most cases the quest for information by this means occurs when a seeker wants to get more information about a particular thing he already knows something about.

Bulletins cannot provide personalized advice or show how the recommended practices can be specifically applied to a particular farm. The use of bulletins presupposes a certain amount of independence of action and decision which may not be required when personal sources are used. It is expected, therefore, that the more progressive and competent farmers will make greater use of bulletins. The finding that the heaviest use of bulletins was among users of county agent services, with 46 percent reporting the use, was in accord with expectations. About 30 percent of the users of other institutionalized sources of information used bulletins. None of the non-users of institutionalized sources, comprising about 37 percent of the people, used this source of information.

Some evidence of the evaluation placed on bulletins as a source of information is evident in the proportion of farm operators who saved them for future reference. In accord with the usual pattern, users of county agents were more careful in this respect than non-users. Almost 60 percent of the users of county agent services saved bulletins for future reference, compared to 46 percent of the users of other institutionalized sources and 26 percent of the non-users who had apparently obtained farm bulletins.

*Other Institutionalized Sources.* Differing in some respects from other institutionalized sources of farm information were farm meetings of a recurrent nature which were frequently named by farm operators as sources of farm information. Some of these were specifically arranged to disseminate farm information, as for example, soils and crops meetings. Others not distinctly educational in nature provided for definite educational features in their programs, often with agricultural specialists appearing as invited guests. When farm operators named farm organizations or farm meetings as a source of farm information, it was assumed that they were referring to such organizations.

Six percent of those interviewed specifically named soils and crops meetings as a source. Percentages for users of county agent services and users of other institutionalized sources were 12 and 9, respectively. (See Figure 8.)



\*Including veteran trainee classes

Figure 8. Farm Operators by Use Made of Designated Institutionalized Sources of Farm Information

One farmer mentioned a meeting at the College of Agriculture and eight others merely mentioned farm meetings.

Although not recurrent in nature, 17 percent of the farmers reported receipt of farm information from the Balanced Farming Action Day program held in their community during the survey year. Percentages reporting this source were 24 for users of county agent services, 22 for users of other institutionalized sources, and 8 for non-users.



Since the use of the Farmers' Home Administration Office was largely confined to FHA clients and since their clientele in the community was very small, the proportion using this source was likewise small. It amounted to only 3 percent of the farm operators in the community, three of whom also used the county agent as a source, and six of whom used one or more other institutionalized sources.

### Use of Mass Communication Media

Except for intimate associates, mass communication media provided the most universally used means of obtaining farm information. They probably provided the easiest way of obtaining farm information. The small amount of effort needed could easily be expended in the comfort of a living room chair. Furthermore, these media were available to all farmers in the community. Eighty-five percent of them subscribed to a local newspaper, 84 percent to a daily paper, and 98 percent had radios in operation. None of

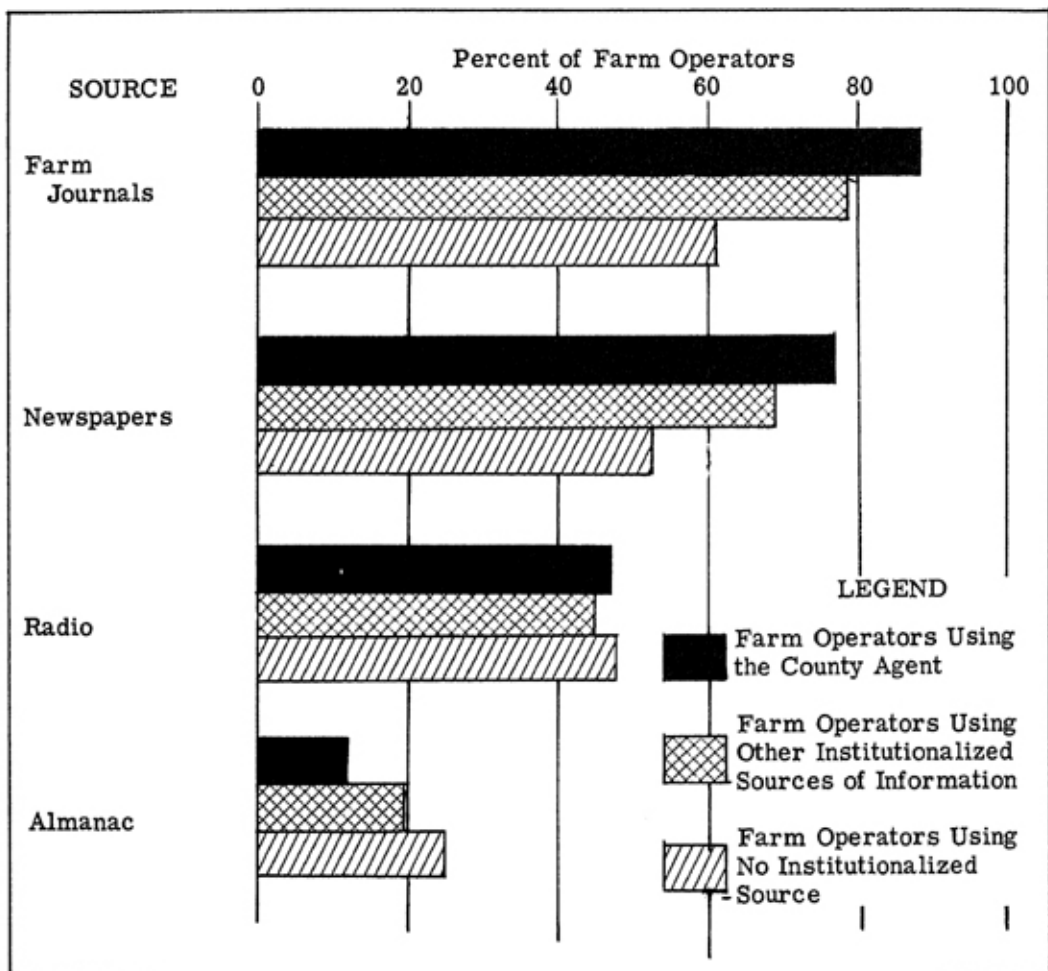


Figure 9. Farm Operators Using Designated Media as Sources of Farm Information by Use Made of Institutionalized Sources of Farm Information

the three groups varied by more than 3 percent from these community averages. Ninety-two percent of all the operators took farm journals, the proportions ranging from 96 percent for users of county agent services to 86 percent for non-users of institutionalized sources. Users of county agent services took an average of 4.3 journals compared to 3.0 for non-users of institutionalized sources, and 3.8 for other institutionalized sources. All groups were well supplied with farm journals.

The proportion claiming farm journals as sources of farm information was generally much higher and more universally in evidence than the proportion getting information from any of the institutionalized sources. Sixty-five percent of the total got farm information from local newspapers, 75 percent from magazines, and 46 by means of the radio. (See Figure 9.) Although differences in most respects were smaller than in the proportion using institutionalized sources, more users of county agent services than non-users got information by means of the mass communication media. For local newspapers, the proportions for users of county agent services, users of other institutionalized sources, and non-users, were 76, 69, and 52 percent, respectively. For farm journals, the corresponding percentages were 88, 79, and 61 and for the radio 46, 44, and 47, respectively. It is thus apparent that more non-users of institutionalized sources of farm information are reached by the mass communication media than by the more direct sources discussed in this bulletin. In many cases they seem to represent the only contacts with new developments in agriculture other than those made through personal associates who may or may not be technologically competent to give advice.

The readership of information articles in newspapers and magazines is a further indication of the esteem placed upon them as sources of farm information. When viewed in this light, their influence is even more in evidence. Seventy percent of the users of county agent services said they regularly read such articles. Fifty-one percent of users of other institutionalized sources and 38 percent of the non-users made the same statement. An additional 24 percent, 33 percent, and 38 percent, respectively, said they occasionally read such articles. Only 6 percent of the first and 23 of the last mentioned said they never read such articles, while the corresponding percentage for users of other institutionalized sources was only 15.

In general, the mass media represent a type of source in which non-users and users of institutionalized sources of farm information were about on a par. This was particularly true with respect to use of the radio. (See Figure 9.) For many farm operators, the mass media seem to provide the only important source of scientific farm information outside of friends and neighbors. The extensive use of mass media as a source of farm information by those who failed to use other more direct sources is borne out by previous work done by the Department of Rural Sociology.<sup>7</sup>

<sup>7</sup>See Herbert F. Lionberger, *Sources and Use of Farm and Home Information by Low-Income Farmers in Missouri*. Columbia, Research Bulletin 472, Agricultural Experiment Station, College of Agriculture, University of Missouri, 1951. Pp. 23-28.



### Use of Personal Sources

*Source Composition.* Although there may be considerable question concerning the quality of advice given by intimate associates, they are undoubtedly the most universally used of all sources of farm information. Ninety percent of the farm operators in this study named this source. No fewer than 82 percent of each of the three groups considered, did likewise. Fifteen percent named their own children. The proportions of users of county agent services, users of other institutionalized sources, and of non-users of institutionalized sources of farm information varied no more than 4 percent from the community average.

Twenty-two percent named veteran trainees or vocational agriculture students as sources, but the variation among the three groups was considerable. About 29 percent of the users of county agents, 26 percent of the users of other institutionalized sources, but only 14 percent of the non-users of institutionalized sources got information from this source. This is in accord with the general pattern of source preference and use found throughout the study. It is unlikely that those who feel no need of getting information from institutionalized sources will look with great favor upon getting second-hand information from people who have not yet proved their ability as farmers, simply because they happen to be studying agriculture.

*Source Competence.* It is probably safe to assume that institutionalized sources of farm information and mass media are competent. Institutionalized sources are almost always closely associated with, or are even a part of, the agencies most responsible for developing new ideas in farming and for testing their usefulness. Mass media in turn rely heavily on institutionalized agencies and on industry for information they disseminate.

In contrast, information obtained from persons may sometimes be of questionable authenticity. If those acting as advisors are not well informed, their advice may be of poor quality. For that reason the question of source competence is an important consideration except where direct communication with representatives of institutionalized information disseminating agencies is involved. Competence of advisors sought by non-users of institutionalized sources of farm information is particularly important because of their relative isolation from sources of known reliability.

Since direct measures of source competence were not available in this study, indirect indicators had to be used. The best available measure seemed to be the state of technology existing on the farms of those sought as sources of farm information. Composite improved farm practice ratings based upon the number of new practices used and the length of time they had been in use were calculated.

Comparison of the scores of those seeking information with those furnishing the information revealed a marked tendency of the seeker to look up the competence scale for his advice. This was particularly true of seekers

rating low on the competence scale. Seekers of information who rated in the 0-4 category sought other operators as sources who had a median rating of 17.8. Seekers in the 5-9 category sought farm operators who had a median improved practice rating of 19.2. This tendency to look up the scale occurred at all competence levels, but the difference between the ratings of seekers and those sought progressively declined as the competence level of the seeker increased, finally culminating in a situation where seekers who had an improved practice rating of 30 and over sought others with a median rating of 36.3. This is not to be regarded as an indication of any lack of interest on the part of the more competent operators in seeking the advice of persons more competent than themselves. Rather, it is a reflection of the limited opportunity for them to find someone more competent than themselves to seek as a source of information, as well as the general tendency of the leaders in any field to want to confer with one another.

This tendency to look up the improved practice scale for personal sources of information was true of both users and non-users of institutionalized sources of farm information. Non-users of institutionalized sources of farm information who had a median improved practice rating of 8.3 sought farm operators who had a median rating of 19.9. For users of other institutionalized sources of farm information, comparable medians were 18.8 and 21.9 and for users of county agent services 19.1 and 26.3.

This, then, is evidence that the "endless chain theory" of diffusion actually works and that there must be a considerable filtering down of farm information from the technologically competent and receptive farmers to those who are reluctant to accept new farm practices. This general inclination to look up the competence scale may be expected to prevail where alertness to new developments in farming is an important status factor as it was in this community.<sup>8</sup> Where this is true, alertness to new developments in farming is something to be respected in others and something to strive for. Under such conditions farm operators who are relatively incompetent, technologically speaking, may be expected to look to the more competent ones in acquiring attributes which will increase their own status. Contrarily, where alertness to new developments in farming is not an important status factor, or where it may even be a negative factor, this upward look in interpersonal information seeking patterns may not occur.

A second means by which competence to give advice may be inferred is from sources used to obtain farm information. This assumes that those who use institutionalized sources of farm information will be more competent to give advice than those who do not, and that those who seek such

<sup>8</sup>C. Milton Coughenour, *Social Stratification in a Northeast Missouri Farming Community*. (Ph.D. Dissertation). Columbia: University of Missouri, 1953. P. 188.

persons will benefit indirectly by getting help from those who do.<sup>9</sup> Comparison of farm operators classed as "seekers" and those classed as "sought" with respect to the sources of farm information used by them revealed that the latter were much more frequent users, particularly of the institutionalized sources.

Approximately three-fourths of the farm operators named as sources of farm information indicated that they had used a county agent as a source during the survey year compared to only 35 percent of those who named them as sources. Although less marked, this same type of relationship was in evidence in the proportion of seekers and persons sought who used each of the institutionalized sources of farm information. Percentages of the relationships between those seeking and those sought who used the Soil Conservation Service Office as a source were 24, and 37, respectively; for the Production and Marketing Association Office, 37 and 54, respectively. Comparable proportions for the vocational agriculture teacher were 26 to 42 and for the use of bulletins, 25 and 37, respectively.

A higher proportion of both seekers and persons sought used newspapers and magazines than used the institutionalized sources. However, those named as personal sources by others were more frequent users of these sources. For radio, little evidence of selectivity in choice was in evidence, with somewhat under half of both seekers and those sought using the radio as a source of information.

These data clearly reveal that farm operators named as sources of farm information were much more inclined to use institutionalized sources of

<sup>9</sup>Also, the frequency with which opportunity for indirect transfer from direct sources of farm information to non-users of these sources takes place may be taken as being suggestive of the usefulness of a source for this purpose. Examination of data relating to the comparative frequency with which information seekers and those sought use specific sources suggests a threefold classification of sources, namely: (1) Cases where non-using seekers seek those who use the source in question, (2) Cases where non-using seekers seek persons who do not use the source in question, and (3) Cases where the relationship is small and of doubtful importance. When so classified the county agent was the only source which distinctly fell in the first category. Seventy percent of the information seeking relationships of farm operators who themselves did not use a county agent were with those who did. The vocational agriculture teacher, the SCS Office, and farm bulletins fell almost as clearly in the second category which represents the reverse condition, i.e., a condition where those who did not use the source were inclined to seek those who also did not use the source. The PMA Office fell in the third category indicating little selectivity between persons seeking and those sought with respect to the use of PMA Offices as a source of farm information. These data thus indicate that the county agent is the most universally used link in the indirect interpersonal chain of diffusion from the college to the farmer. Since this finding could be of considerable significance from the standpoint of educational planning and since the author is not in a position to explain why the relationship did occur, the matter will receive further consideration in subsequent publications.

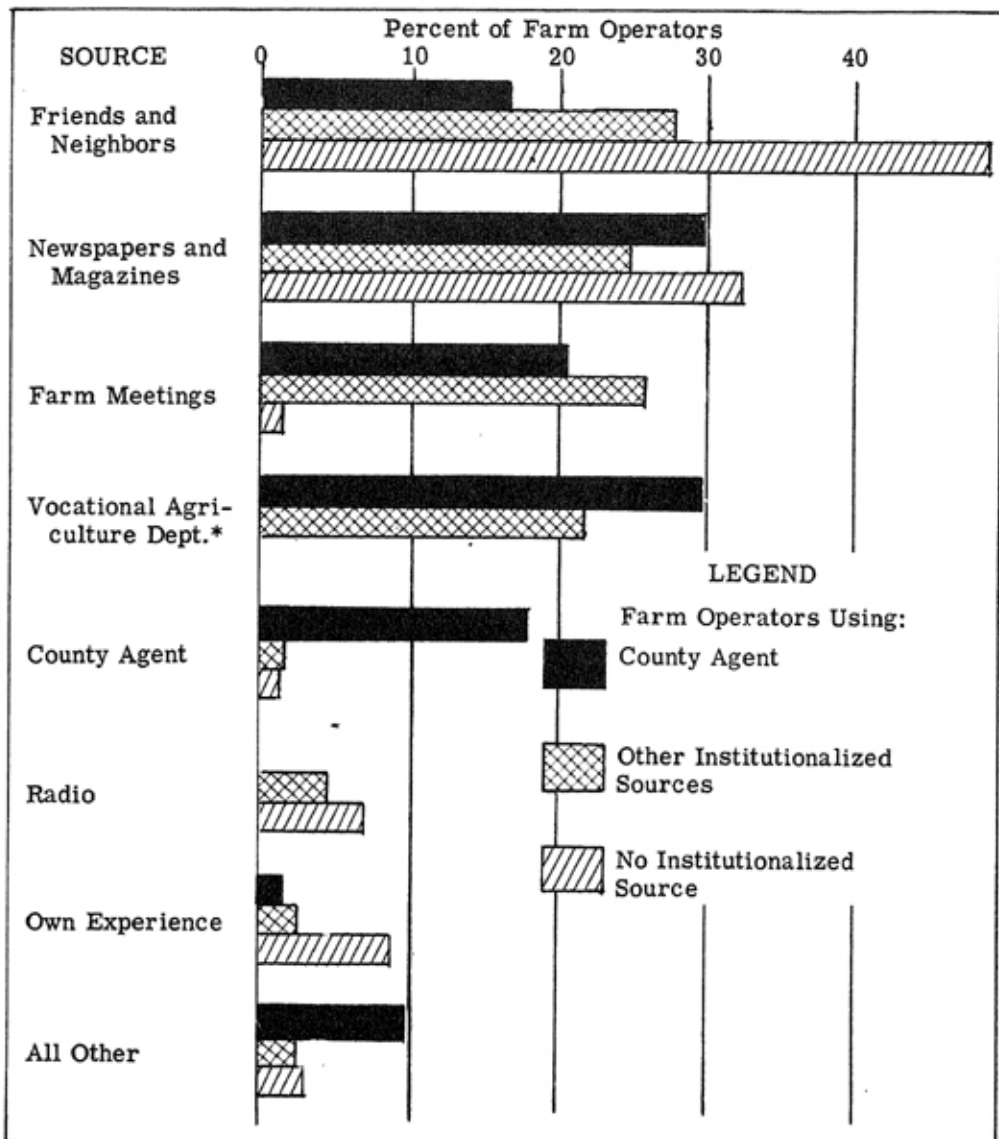
farm information than those who named other farm operators as sources. Perhaps, even more important is the fact that this same difference was clearly in evidence when only contacts between information seekers and those named as most frequently sought were considered. From 35 to 74 percent of the persons most frequently sought used each of the institutionalized sources considered in this study, while only 21 to 55 percent of those who sought information from them used these sources. Only one of the latter percentages exceeded 36 percent and only two exceeded 26 percent.

Still another type of evidence indicative of both competence of personal sources and resistance to change is the degree of receptivity to innovations in farming. People who are highly resistant to change can hardly be, and certainly cannot remain, competent sources of information in a rapidly changing society. Those who are highly receptive are predisposed to the acquisition of new information and thus to social change. Comparison of information seekers and those sought with respect to receptivity revealed that those sought were slightly more favorable to change. However, of much more significance is the fact that the relatively non-receptive persons readily sought those who in turn were highly receptive to innovations in farming. Thirty-three of the 43 farm operators (77 percent) who were rated antagonistic to new ideas about farming named other persons as sources of farm information who were rated either receptive or actively seeking. Also, 64 out of the 92 (70 percent) seekers rated as indifferent or complacent sought farm information from others who were rated as either receptive or actively seeking farm information. The same receptivity pattern of information seekers and persons sought was obtained when only contacts with persons most frequently sought as sources of farm information were considered. It is thus obvious that interpersonal contacts provide low-resistance avenues for farm information which is not accepted when coming from the more direct institutionalized agencies.

### Operator Evaluation of Sources

Use or non-use of a source of information is one expression of the evaluation placed upon it. However, since use is also a function of source accessibility and operator habit, simple use-frequency data may not clearly reflect the relative importance placed upon it by the user. Verbal expressions of importance provide a more direct approach. A distinction should be made between opinions that are generalized to cover a wide variety of informational needs on the one hand, and those largely related to specific needs on the other. Data available in the study regarding generalized opinions consisted of sources of farm information considered most useful by farm operators. Data available for evaluating the usefulness of sources for specific purposes consisted of expressions of where farm operators got most of their information about specific farm practices and where they would go for more

information if needed. Such responses can be regarded only as rough approximations of the opinions.



\*Includes adult farm adult classes, vocational agriculture and veteran on the farm training teachers attached to the Department

Figure 10. Sources of Farm Information Considered Most Useful by Farm Operators by Use Made of Institutionalized Sources of Farm Information

**General Evaluation.** As might be expected users of institutionalized sources were much more likely than non-users to name one of the institutionalized sources as the source most valuable to them while non-users were much more likely to name friends and neighbors. The proportions naming newspapers and magazines were comparatively high and about the same for all three groups. (See Figure 10.) Heading the list for users of county agent

services were newspapers and magazines and the vocational agriculture teacher, followed in order by farm meetings and the county agent. For users of other institutionalized sources, friends and neighbors headed the list, with farm meetings, newspapers and magazines, and the vocational agriculture teacher following in close order. Non-users of institutionalized sources placed friends and neighbors in an undisputed number one position with newspapers and magazines lagging considerably behind but nevertheless named by nearly one-third of the group. Less than 10 percent of this group named any other source. Taking all farmers in the community as a whole, most useful sources were named in the following order: (1) friends and neighbors, (2) newspapers and magazines, (3) the vocational agriculture teacher, and (4) farm meetings.

*Sources Favored for Specific Purposes.* One type of data from which source preferences for specific purposes could be inferred was intensity—use data relating to where operators got most of their information about specific practices. Limited data available tended to bear out conclusions drawn from the more generalized preference. In the case of information regarding a practice closely related to existing farm operations, namely information about new soybean varieties, all three groups were more highly dependent on friends and neighbors than any other source, with users of institutionalized sources being more inclined than the non-user group to name both magazines and institutionalized sources as most used. (See Figure 11.) However, with respect to the use of commercial fertilizer, which is a practice requiring the use of more technical information, users of institutionalized sources were much more likely than non-users to consider institutionalized sources, particularly the county agent, farm meetings, and adult classes, as most valuable. Non-users, on the other hand, were much more likely to make most frequent use of friends and neighbors. (See Figure 12.) Comparatively speaking, institutionalized sources were much more highly rated as sources of information about fertilizers than as sources about soybean varieties. Taken collectively, they constituted the most frequently named sources for all except the non-user group who placed friends and neighbors in an undisputed number one position.

With respect to first information about a comparatively new farm practice for which data were available, namely the use of Ladino clover, more users of county agent services got first information from soils and crops meetings than from other sources with farm journals and adult farm classes following in close order (See Figure 13.) For users of other institutionalized sources, the situation was much the same, with other farmers holding a slight edge over other listings. However, if newspapers and farm journals are taken collectively, they clearly stand in the number one position for all three groups as a source of first information about Ladino clover.

Designation of a source as a place where additional information would be sought if needed, is an expression of confidence in the source and a good



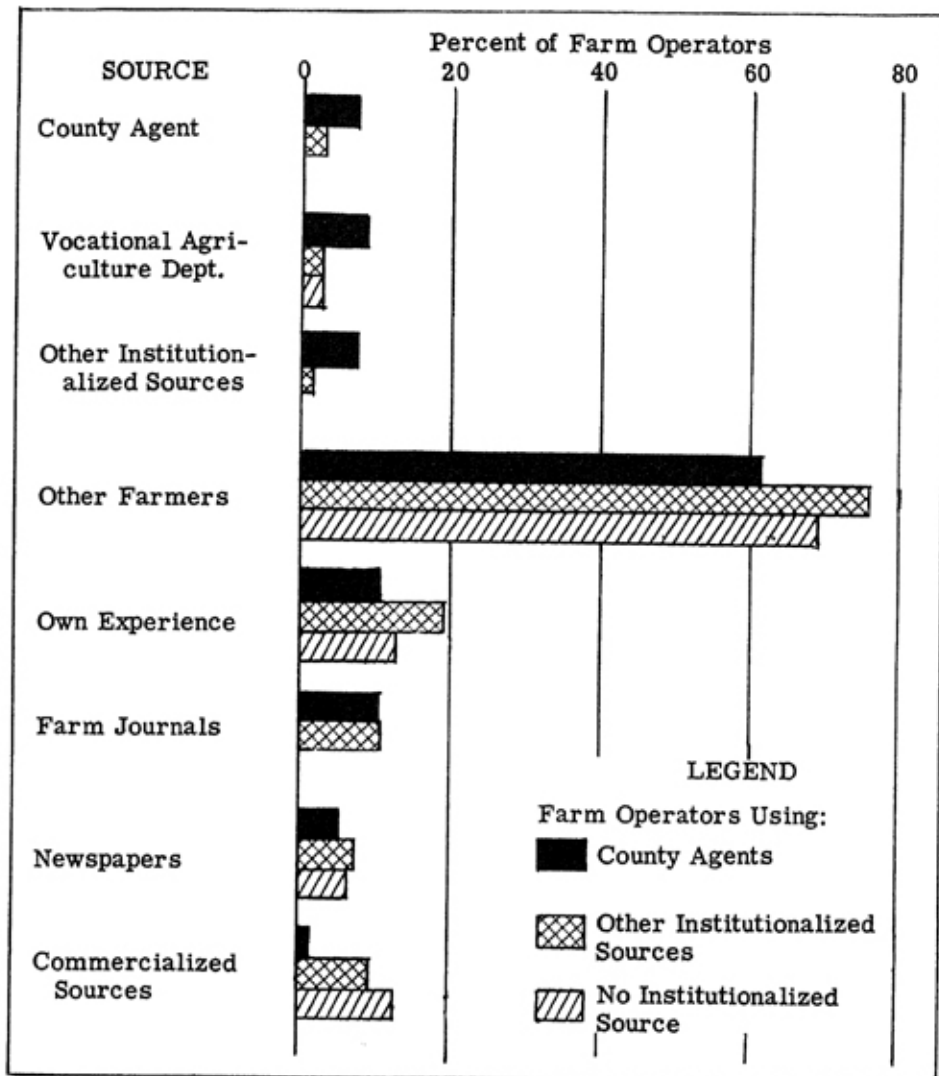


Figure 11. Where Farm Operators Obtained Most of Their Information about New Soybean Varieties by Use Made of Institutionalized Sources of Farm Information

indication of the source-orientation of the operator. Data concerning sources to which farm operators would go for additional information about the following subjects were available for consideration on this basis: (a) problems of hog production, (b) the use of Ladino clover, (c) control of garden insects, and (d) control of poultry diseases. Assuming a clientele capable of recognizing the comparative merit of sources for specific purposes, a diversity in source preference would be expected. Figures 14 through 17 clearly show such a diversity for all source-use groups. Differences of this size likely would not occur in a non-discriminating clientele.

Comparison of the choices for more information on specific subjects with those indicating where farm operators got most of their information

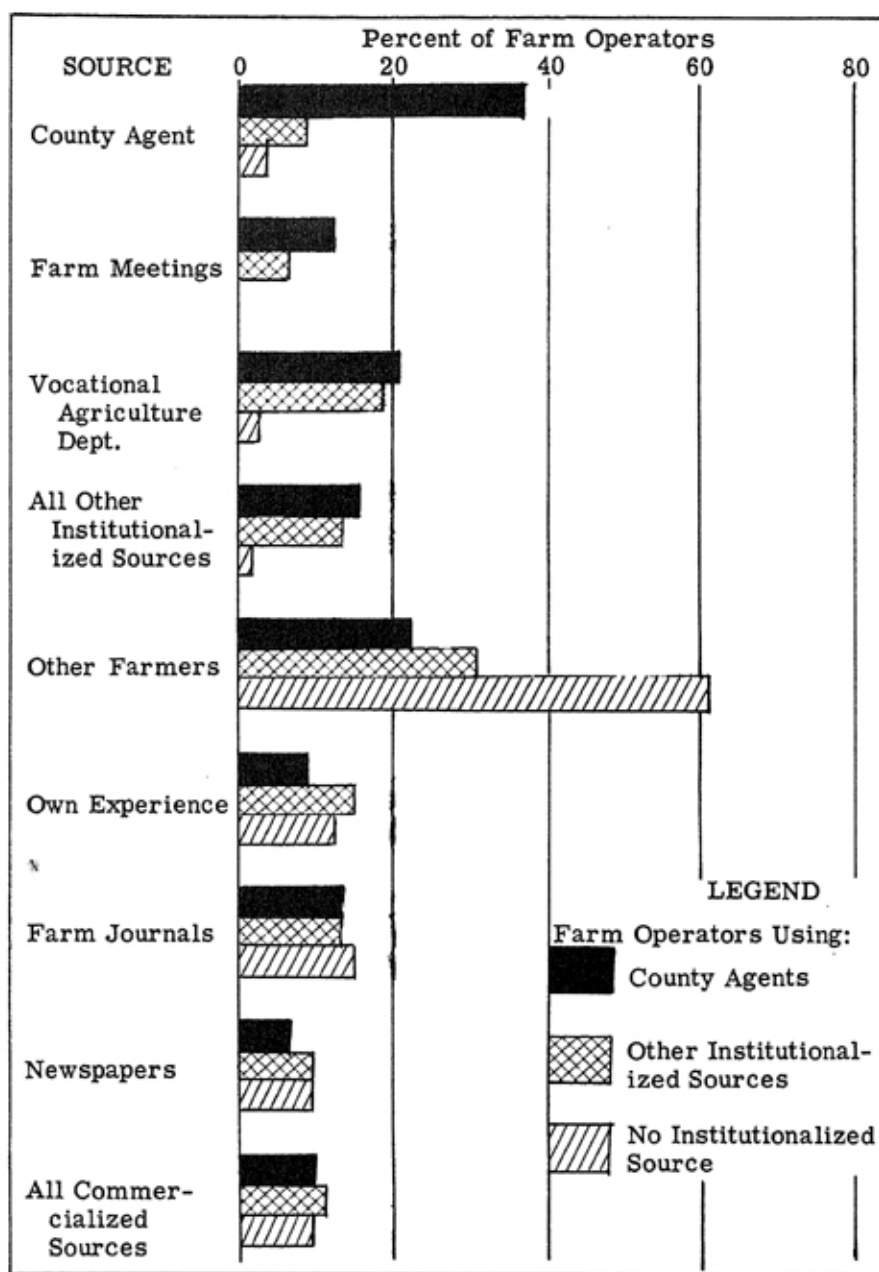
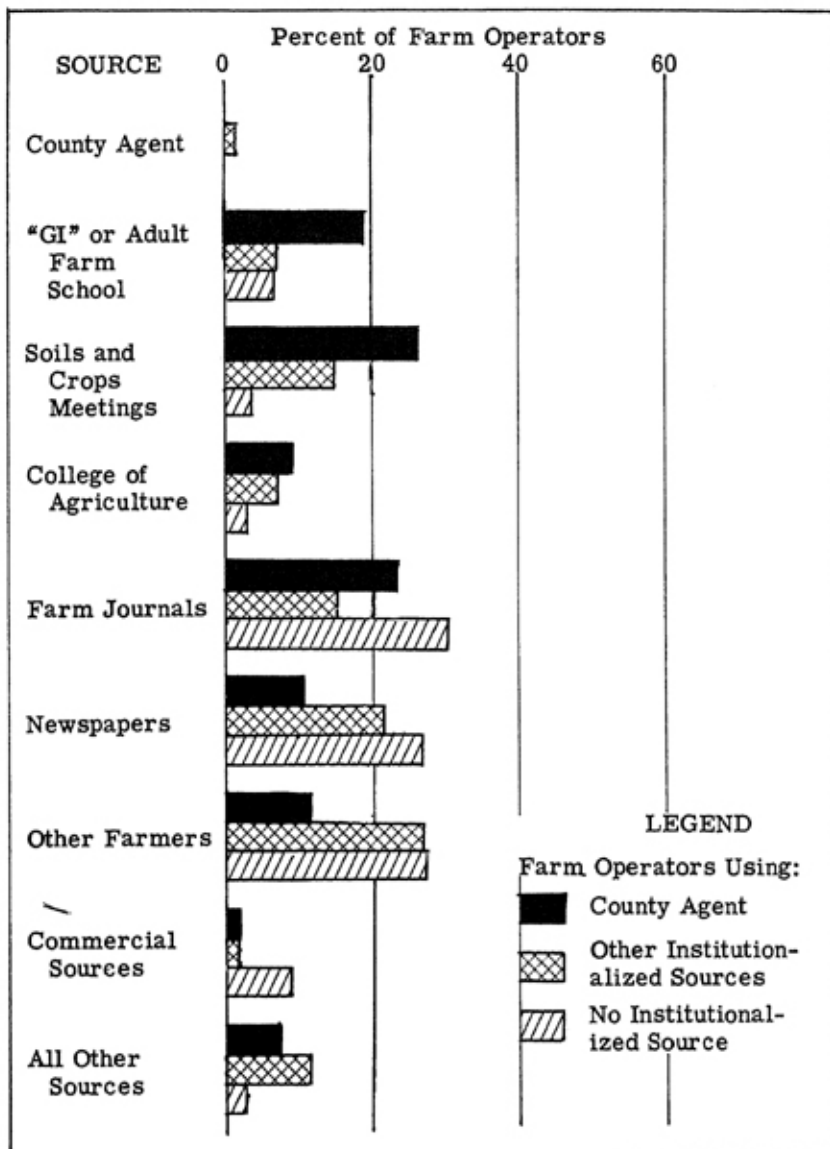


Figure 12. Where Farm Operators Obtained Most of Their Information about Commercial Fertilizers by Use Made of Institutionalized Sources of Farm Information

on subjects previously considered reveals several obvious differences. First, there is a tendency to place less emphasis on friends, neighbors, newspapers and magazines in favor of institutionalized sources. Second, new favored sources were in evidence. For example, the veterinarian was frequently named as a potential source of additional information about poultry disease and about problems of hog production which many apparently interpreted

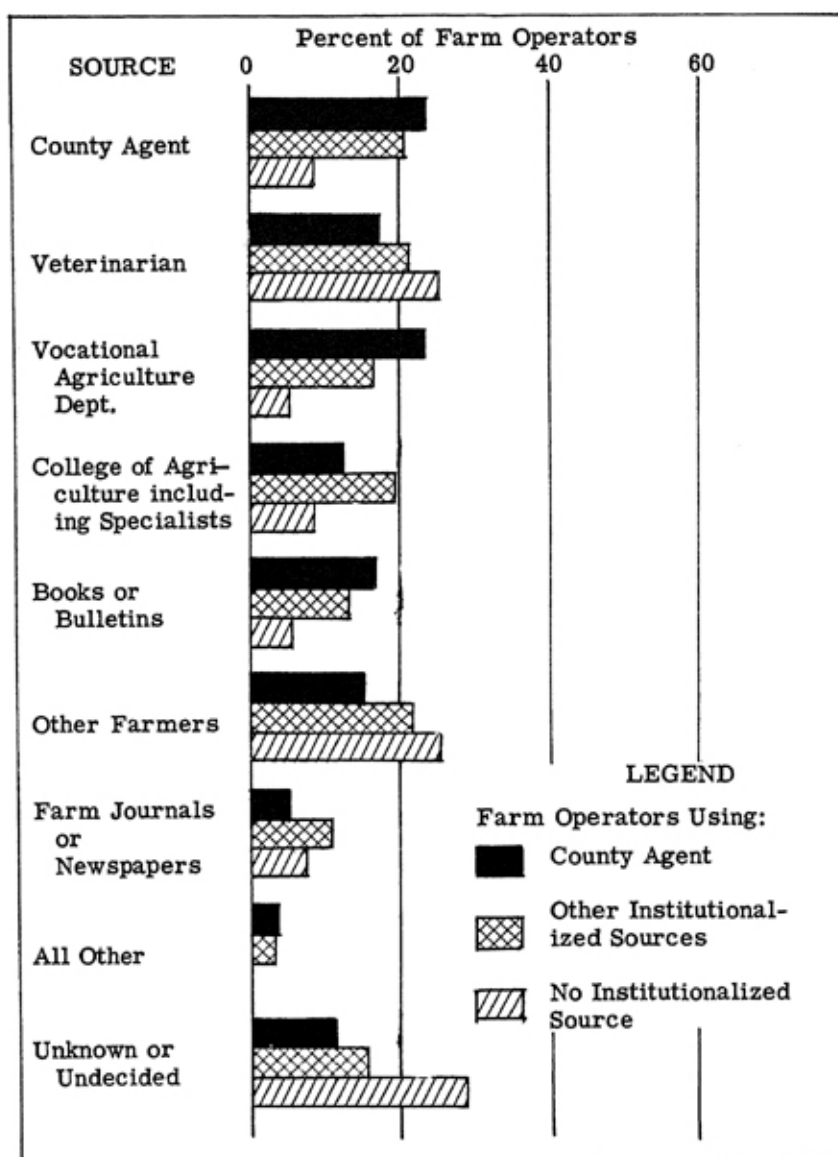




Based on the responses of 223 operators who knew about and remembered where they first learned about Ladino Clover

Figure 13. Where Farm Operators First Learned about Ladino Clover by Use Made of Institutionalized Sources of Farm Information

to mean primarily diseases of hogs. Such government agencies as the Production Marketing Administration and the Soil Conservation Service which figured prominently as named sources of information were assigned positions of relative unimportance as sources from which farm operators would seek additional information, if needed. Another type of source not frequently mentioned in connection with use data was commercial agencies. For



Based on the responses of the 257 farm operators raising hogs.

Figure 14. Where Farm Operators Would go for More Information about Hog Production by Use Made of Institutionalized Sources of Farm Information

example, many farmers named the drug store as the place they would go for information about the control of garden insects. As a prospective source about poultry diseases, hatcherymen and other commercial sources were assigned the number one position by a substantial margin by all three groups.

There was a decided inclination for the non-user group to name institutionalized sources as places where they would go for information, if need-

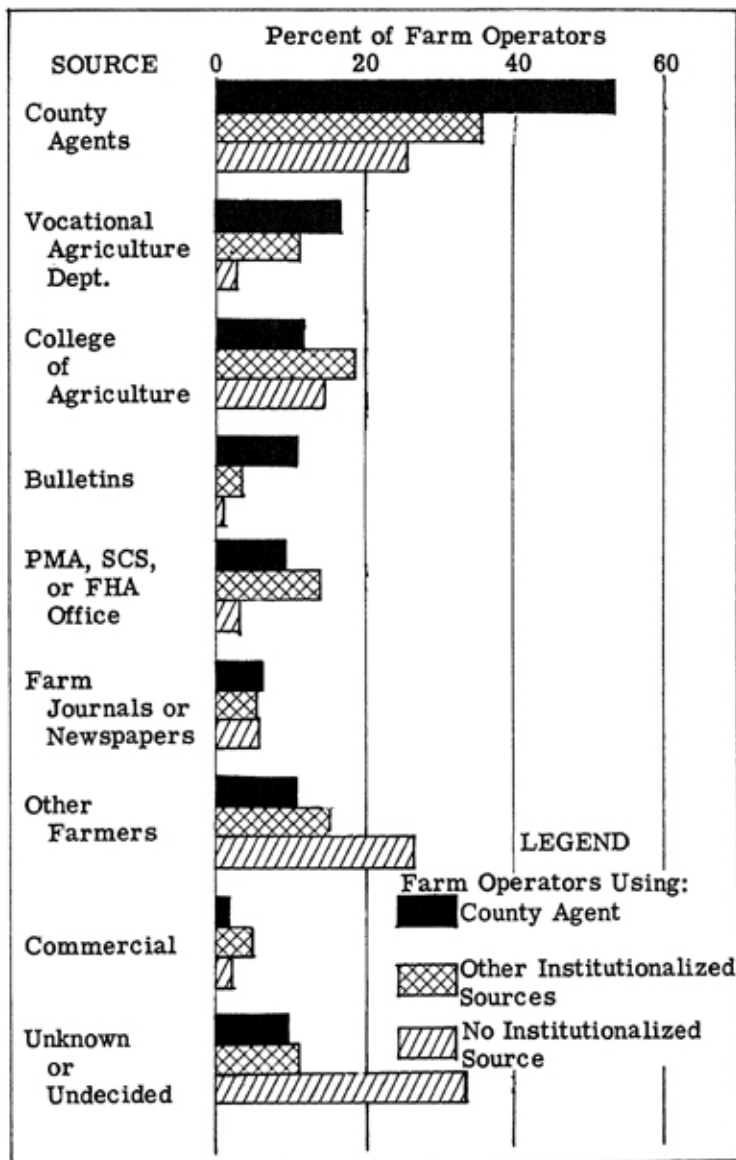


Figure 15. Where Farm Operators Would go for More Information about Ladino Clover by Use Made of Institutionalized Sources of Farm Information

ed, despite the fact that they had not used them during the survey year. (See Figures 14 through 17.) Also, many users of other institutionalized sources said they would go to the county agent for help if needed, even though they had not done so during the preceding year. This suggests that the reasons why non-users of institutionalized sources did not use such sources could be that they either did not feel a need for additional information or that they were reluctant to make the necessary contacts. The lower receptivity to new ideas about farming on the part of non-users which was dem-

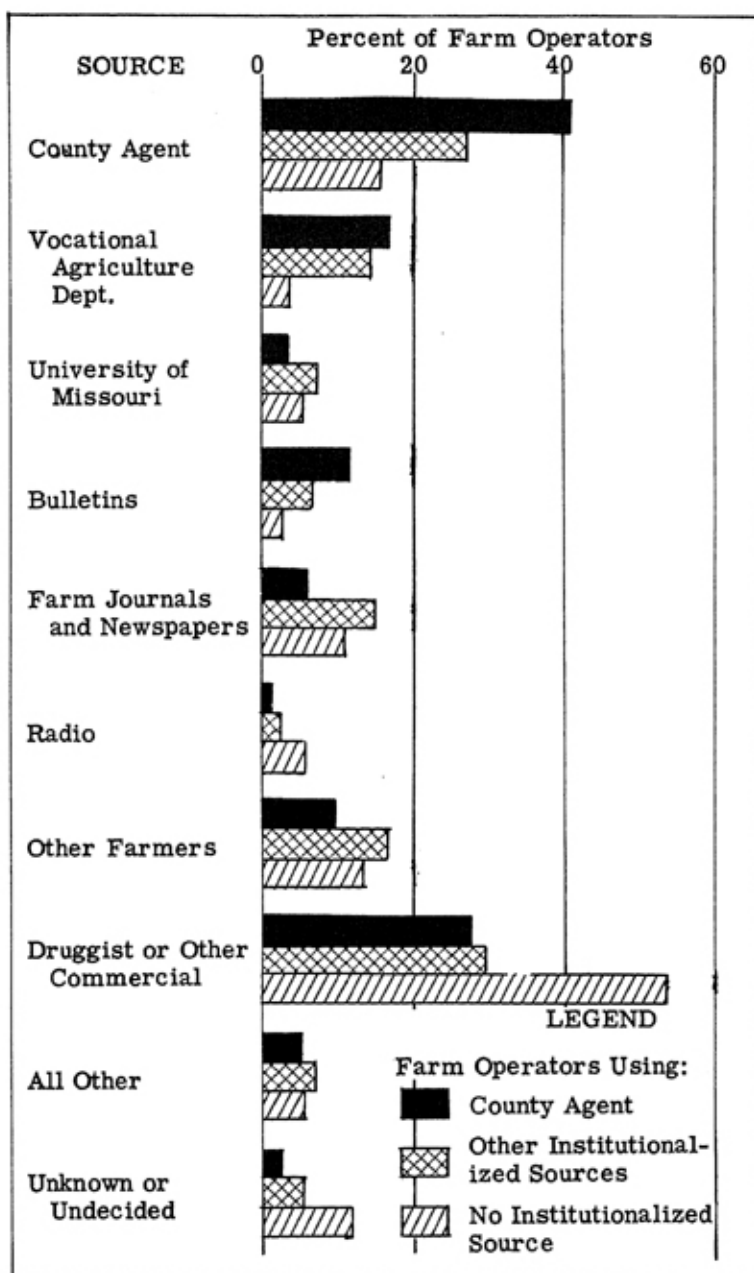


Figure 16. Where Farm Operators Would go for More Information about the Control of Garden Insects by Use Made of Institutionalized Sources of Farm Information

onstrated earlier in this study, lends credence to the lack of interest explanation. Data for evaluating the latter point of view are essentially lacking in this study.

Another thing apparent in the data is that the sources chosen for more information were predominantly personal in nature, with both users and

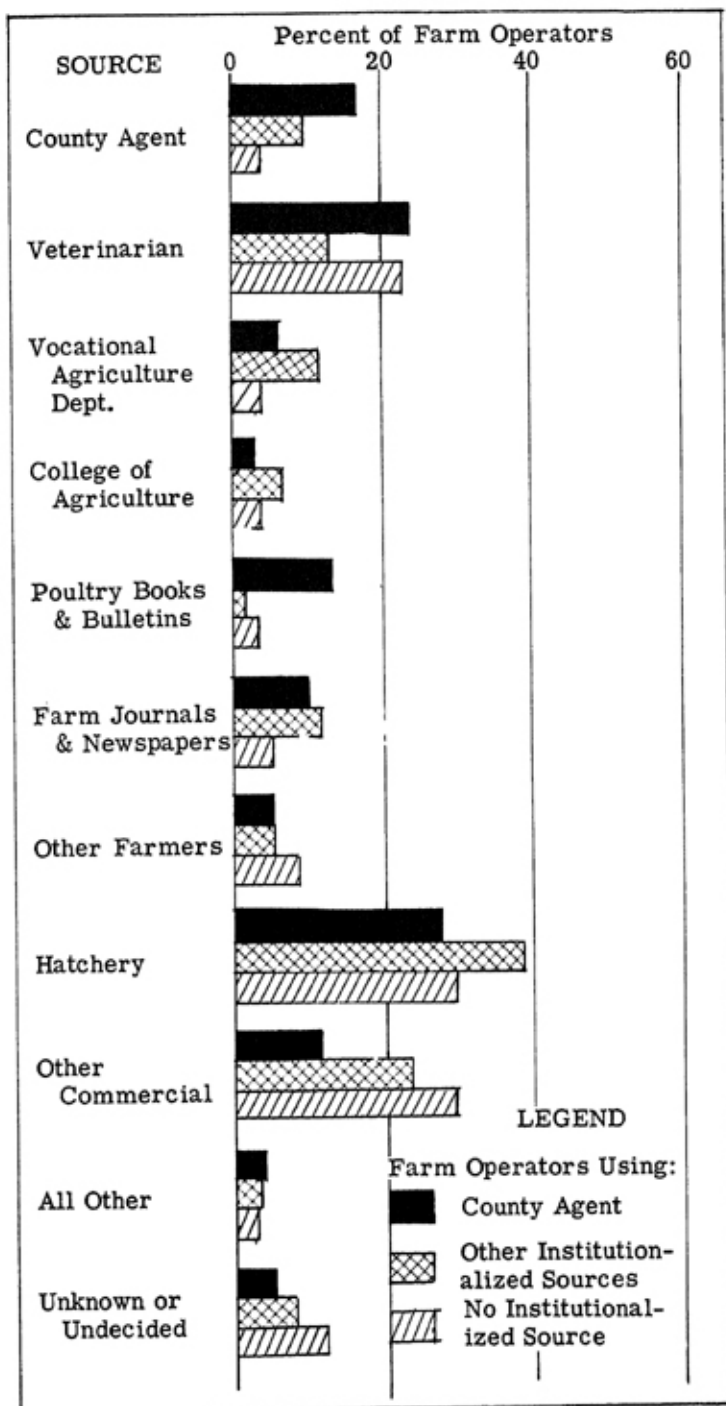


Figure 17. Where Farm Operators Would go for More Information about the Control of Chicken Diseases by Use Made of Institutionalized Sources of Farm Information

non-users of institutionalized sources looking to institutionalized sources in a large proportion of the cases. This indicates a greater orientation to institutionalized sources than the use-data indicated.

## SUMMARY AND CONCLUSIONS

### Characteristics Profile of Groups

Eighty-four (30 percent) of the 279 farm operators interviewed said that they obtained farm information from a county agent during the survey year; 93 (33 percent) said they got information from some other institutionalized source, and 102 (37 percent) indicated that they had received no farm information from an institutionalized source.

Of the three groups the non-user group was most distinctive with respect to characteristics affecting the diffusion of farm information. They were much older than users of county agent services and users of other institutionalized sources. (See Table 4.) The median age reported for the non-user group was almost 59 years. More than 45 percent of them had attained the age of 60 while less than 10 percent were under 35 years of age. Thus, many of them were anticipating or entering a decline in farm operations. They were smaller operators than those who used the institutionalized sources. Their farms, which averaged 164 acres in size, were about 68 acres smaller than the farms of the county agent using group, and 70 acres smaller than the farms of those who used other institutionalized sources. Sixty-three percent owned tractors compared to 90 percent in the other two groups. Gross farm incomes of non-users were only about half as large as those of the users of one or more institutionalized sources of farm information. Also, they were accorded a lower status in the community. This was indicated by lower community prestige and Sewell socio-economic status ratings and by fewer possessions indicative of mass society status.

Non-users of institutionalized sources of farm information were much less active in formal social organizations than others in the community. A composite social participation score placed them at a participation level less than half that of the two user groups. Also, their social activities were much more restricted to the immediate locality than the social activities of other farmers in the community. This meant that their opportunity for getting farm information by word of mouth was largely restricted to the immediate locality.

Non-users of institutionalized sources of farm information were far less competent technologically than other farmers. This was best indicated by the number of improved practices they were using and the length of time they had been using them. A composite rating based on these two factors placed them about half as high on the scale as users of county agents and users of other institutionalized sources. An indication of receptivity to new ideas about farming, aside from what could be inferred from use of improved farm practices, was obtained by assigning a receptivity rating to each operator at the time of the interview. Only 6 percent of the non-users of institutionalized sources were judged to be actively seeking new ideas about farming. An additional 20 percent were regarded as receptive. This left 74 per-



TABLE 4 -- CHARACTERISTICS PROFILE OF USERS OF COUNTY AGENTS, USERS OF OTHER INSTITUTIONALIZED SOURCES; AND NON-USERS OF INSTITUTIONALIZED SOURCES OF FARM INFORMATION

Characteristic-Statistic used	All three groups	Users of county agents	Users of other institutionalized sources	Users of no institutionalized sources
<b>STATUS FACTORS AND ATTRIBUTES</b>				
<u>Average of Group</u>				
Age in years	50	44	47	59
Years schooling completed	9	11	9	9
Years farming	22	18	22	32
Number of acres operated	212	232	234	164
Gross farm income (dollars)	3424	4385	3969	2125
Prestige	4	4	5	5
Sewell Socio-economic Status Score	78	80	80	73
Social participation score	6	9	8	3
Localistic social participation score	4	5	5	2
Community social participation score	1	3	3	1
Secular social participation score	4	5	5	1
Sacred social participation score	3	4	4	1
<u>Percent of Group</u>				
Participating in groups requiring adm. or advisory responsibility	20	27	22	12
Participating in extra-community formal groups	13	26	9	5
Owning farms operated	80	85	80	77
Owning tractors	80	91	89	63
Located on all-weather road	73	82	79	60
Having radio in home	98	99	99	96
Having telephones	88	94	88	83
Running water in home	26	35	30	15
Having electricity in home	93	98	95	86
Taking a local newspaper	85	83	89	82
Taking a daily newspaper	84	86	81	86
Taking one or more farm journals	92	97	95	86
<b>TECHNOLOGICAL COMPETENCE</b>				
<u>Average of Group</u>				
Improved practice rating	13	19	19	8
<u>Percent of Group Using</u>				
Sodium fluoride treatment for worms in hogs	29	42	32	15
Ladino clover	15	30	12	5
Commercial fertilizer according to soil test	19	45	15	2
Nitrate fertilizer	12	25	13	1
Rock phosphate	21	35	26	6
Recommended oat varieties	47	58	58	28
Recommended soybean varieties	62	62	68	57
Chemical spray to control weeds	25	33	27	17
Terraces or plow on contour	22	39	20	8
Spray dairy cattle with methoxychlor	5	7	5	3

(Table 4 continued)

Characteristic-Statistic used	All three groups	Users of county agents	Users of other institu- tionalized sources	Users of no institu- tionalized sources
<u>Percent of Group</u>				
Receptive to or actively seeking new ideas about farming	61	89	73	26
SOURCES OF FARM INFORMATION USED				
<u>Percent of Group Using</u>				
Production and Marketing Adminis- tration Office	33	54	51	0
College of Agriculture and USDA bulletins	23	46	28	0
Soil Conservation Service Office	17	38	16	0
Vocational agriculture teacher	19	38	24	0
Adult classes	26	44	38	0
Balanced Farm Action day	17	24	22	8
Farm meetings	9	16	14	0
Farm journals	75	88	79	61
Newspapers	65	76	69	52
Radio	46	46	44	47
Almanac	19	12	19	25
Friends and neighbors	90	93	96	81
SOURCES CONSIDERED MOST USEFUL				
<u>Percent of Group Naming</u>				
Friends and neighbors	32	17	28	49
Newspapers and magazines	29	30	25	32
Farm meetings	15	20	26	1
Vocational Agriculture Dept.	16	30	22	0
County agent	6	18	1	1
Radio	4	0	4	7
Own experience	4	1	2	9
ATTITUDE TOWARD COUNTY AGENT				
<u>Percent of Group</u>				
Favorably disposed	58	94	56	31
Indifferent or unfavorable	42	6	44	69
<u>Percent of those indifferent for reasons given</u>				
Agent all right but don't need him	54	83	52	52
Recommendations not practical	18	17	13	21
Too young or lacks practical experience	7	0	11	5
Agent doesn't know	3	0	2	3
Lack of time or agent inaccessible	7	0	11	5
Farmer makes own decisions	4	0	9	2

cent who indicated varying degrees of indifference to new ideas about farming. This was in marked contrast to the other two groups who much more frequently displayed an eagerness for new ideas about farming.

Barriers to the adoption of new farm practices were exhibited more frequently in the thinking of non-users than among users of institutionalized sources. The most frequent reason given was that farm operations were on a decline. Considering that 45 percent of them were 60 or more years of age, this is not surprising. However, this reaction was in marked contrast to the other two groups who were more inclined either to indicate no barriers to the adoption of new farm practices or to give lack of financial resources as a reason.

Almost without exception, users of county agent services exhibited the opposite extreme with respect to the characteristics possessed by non-users. In general, they were younger, technologically more competent, were larger operators, had larger incomes, and were more alert to new developments in farming than farmers who made no use of county extension agent services. They were much more active in both church and secular groups. They were also accorded a higher prestige rating by their associates, and were more active in formal social groups of all kinds than the other farmers. They were assigned more positions requiring administrative and advisory responsibility. By practically all measures of mass society status they were rated above the other two groups.

Users of other institutionalized sources of farm information generally occupied an intermediate position between users of county agent services and non-users of institutionalized sources with respect to the foregoing characteristics. However, in nearly all cases, they more closely resembled users of county agent services than those who used no institutionalized sources. In many respects the chief difference between users of county agent services and users of other institutionalized sources was the fact that the latter did not make use of the county agent during the survey year.

The classification of farm operators into the three source-use categories in large measure predetermined the degree and type of variation found with respect to certain other characteristics. For example, those who use the county agent services are almost certain to view his services with favor, else they would not seek his advice. Therefore, it is not surprising that this was true in 94 percent of the cases. Nor is it particularly surprising that 69 percent of the non-user group regarded the agent with varying degrees of indifference. However, 56 percent of users of other institutionalized sources of farm information viewed the county agent and his work with favor. The difference expressed seemed to be due primarily to a feeling of no need, rather than to any belief that the county agent was incompetent to give sound advice. Many of the indifferent seemed to feel that the county agent served a useful purpose for others but that they themselves did not need him.

Farm operators who used the county extension agent also used many other sources of farm information. About 38 percent of them got information from the SCS Office, over half from the PMA Office (now ASC Office), 38 percent from the vocational agriculture teacher, 46 percent from bulletins, and 29 percent from veteran trainees or vocational agriculture students. Soils and crops meetings also were used frequently as a source by this group.

Although by definition users of other institutionalized sources of farm information did not admit getting help from a county agent, almost half of them attended a meeting during the survey year where one was present. Of the institutionalized sources, 16 percent used the SCS Office, 51 percent the county PMA Office, 24 percent the vocational agriculture teacher, 26 percent vocational agriculture students and veteran trainees, and 28 percent farm bulletins. About 9 percent of them also got information from soils and crops meetings.

Although proportions were higher for users of institutionalized sources of farm information than for non-users, many of each of the three groups made use of mass communication media. Except for friends and neighbors, mass media were the most universally used source. No fewer than 61 percent of any group got information from farm journals, 53 percent or more from newspapers and at least 44 percent of all groups by means of the radio. At least three-fourths of all three groups said they read farm information articles in newspapers and magazines at least occasionally.

Ninety percent of the farmers interviewed said they got farm information from friends and neighbors with no fewer than 82 percent of any group naming this particular source. Fifteen percent named their own children with a variation of no more than 3 percent from the general average by any of the three groups.

Persons sought as sources of farm information were found to be more competent to give advice than those who sought them. This was indicated by a general tendency to seek farm operators with a much higher improved farm practice rating than their own and by an inclination on the part of those sought to make much greater use of institutionalized sources of farm information than those seeking them. These same tendencies were also clearly in evidence when only contacts between information seekers and persons most frequently sought as sources were considered. From 35 to 75 percent of the persons named as most frequently sought sources used each of the institutionalized sources considered, compared to from 21 to 55 percent of the seekers.

Of all institutionalized sources of farm information used, the county agent seemed to be in the most strategic or advantageous position for reaching farm operators indirectly through other people. Only in the case of the county agent was there a tendency for those who did not use this source directly to seek those who did. In the case of all other institutionalized

sources, non-users of the source were inclined to seek the advice of others who also were non-users. However, with respect to newspapers and magazines the tendency was for non-users to seek users. No clear-cut tendency of this kind was in evidence, with respect to users and non-users of radio as a means of obtaining information.

Farm operators who were named as personal sources of farm information were much more active in formal social organizations than those who named them. This was especially true with respect to participation in organizations which required association with people outside of the immediate locality. Farm operators sought as sources were much more frequently rated as receptive to new ideas about farming than those who sought them.

### Implications For Educational Programming

Since this study was confined to a single northeast Missouri community where grain and livestock farming prevail and where conditions of farming are generally above the state average, sweeping generalizations which apply to all farmers in the state cannot be made. However, since the community was selected from a relatively homogeneous five-county culture core area and since it was found to be similar with respect to selected basic cultural characteristics, generalization may be regarded as valid for these counties and perhaps to a lesser degree for the other 12 counties contained in the larger social area. Implications and generalizations stated should be viewed with these limitations in mind.

*Users of County Agents.* Of the three groups of farmers considered, the problem of reaching users of county agent services with educational materials seems to be the least difficult. Not only did they use the county agent source but they habitually used many other institutionalized sources of farm information. They were generally alert to new developments in farming and were among the first to adopt new farm practices. No doubt some get new information about as soon as the county agent and have already decided to adopt a new practice or have actually done so when they first see the county agent.

Rohrer<sup>10</sup> suggests that what such farmers need most, perhaps, is a discriminating audience which can supply high calibre recognition for foresight, good judgment, and initiative. Editors of farm journals and local newspapers can also serve a useful purpose in this respect. Actually, this need may be more important than is at first apparent. Where it is not forthcoming from high prestige sources, as for example in communities where alertness to new developments in farming and technological innovation is not a prestige factor, some other means of supplying the need is essential.

<sup>10</sup> Wayne C. Rohrer, *Some Hypotheses Relevant to the Agricultural Extension Service* (research paper read at the Annual Meeting of the Rural Sociological Society at Urbana, Illinois, September, 1954).

Even where this is a prestige factor, as was true in the community studied, recognition from a discriminating audience helps. This function should not be overlooked by those in a position to supply it.

Of further importance from an educational standpoint is the role that users of county agent services play in the education of other farmers. Since in this case they represented the more competent farmers in the community, they were eminently qualified to give advice to those who themselves were reluctant to change or who were unwilling to seek information through direct channels. As trusted friends and neighbors they play an important role in providing the counsel needed to convince skeptics that changes should be made, thus providing low resistance avenues of effectively reaching skeptics, or the timid, with educational materials. However, insofar as sources of farm information for this group is concerned, existing programs and media seem to provide an adequate means of keeping them informed about new developments in farming.

*Users of Other Institutionalized Sources of Farm Information.* The problem of reaching these farmers with educational materials does not appear to be greatly different from the problem of reaching those who used the county agent source. Except for direct use of the county agent, they use much the same sources. They are generally alert to new developments in farming and offer little more resistance to the adoption of new farm practices than those who used the county agent source. Since many of them are favorably disposed to the county extension agent and his work, bringing them into the circle of users seems to be largely a matter of establishing proper contacts with them. For those who are indifferent to the agent because they feel they do not need his help, the problem is somewhat different. A feeling of need for his services is probably a prerequisite to the formation of habits of use. Radio and television programs depicting what farm life can be like and what the College of Agriculture has to offer, might be valuable in this respect. Even without the direct assistance from the county agent many farmers in this group are well supplied with farm information from reliable sources. Also, the patterns of informal exchange of farm information are such that they benefit indirectly from the agent's services.

*Non-Users of Institutionalized Sources.* Of the three groups studied, it is this one which poses the most distinctive educational problem. This stems partly from different habits of using farm information and partly from a difference in the problems with which they are confronted. On the whole, the non-user group represents smaller operators which means that they must gear farm technology to a smaller scale of operations. This involves special difficulties, particularly where major changes in farm operation requiring large capital outlay are involved.

Attitudes of skepticism toward major changes are further fortified by the prospect of retirement. At such a time matters related to high level pro-



duction appear less significant and matters related to financial security, maintenance of health, utilization of leisure, and adjustments attendant to release from the more rigorous aspects of farm life take on relatively more importance. In view of the aging farm population, problems related to retirement, and to the continued utilization of the declining physical energies of the aged, will increase rather than decrease. Farm operators who have become accustomed to high tempo work-management roles with high production as a major objective are likely to find adjustments required by declining physical energies difficult. Professional assistance can make the adjustment easier and perhaps less costly to both society and the individual. Services directed to this end are likely to appeal to the less robust members of the non-user group.

With respect to habits of using sources of farm information, two alternatives are open to educators. They may work within the existing habit patterns of farm information use or they may try to change them. The former course of action should require the least effort and should show the quickest results. If this course is to be followed, heavy reliance must be placed upon mass communication media and upon friends and neighbors as sources of farm information. Almost half of these farmers used the radio and over half used newspapers and farm magazines as sources of information. Even the almanac was used by one-fourth of them. (For those who use the almanac a revised edition may be in order.) These media should, therefore, be extensively used as a means of informing non-users of institutionalized sources about new developments in farming. As a means of convincing them that changes should be made, they seem to be less useful.

About four-fifths of the group said they got information from friends and neighbors. It is quite likely that the others did likewise although they did not say so. This means that friends and neighbors are the most universally used source of farm information. Although many non-users of institutionalized sources of farm information undoubtedly first learned about new developments in farming from friends and neighbors, the most important function of the latter seems to center about their role in influencing those who seek their advice. They also perform something of an experimental function for those who are not inclined to take the risks or who are actually not in a position to take the financial risk involved. This may be one reason why their advice seems to be so convincing.

The fact that farm operators sought as personal sources of farm information were technologically more competent than those who sought their advice, and that they were also more alert to new developments in farming and were more frequent users of institutionalized sources of farm information, further emphasizes the importance of the role they are in a position to play in the indirect diffusion process. Differences indicative of competence to give advice were especially great between information seekers and those

most frequently sought as sources of farm information. This further emphasizes the important role that a few people can play in facilitating the diffusion-use processes; it also suggests that these farmers exercised good judgment in picking their personal sources of farm information.

Since a comparatively few were named by others in the community as most frequently sought personal sources of farm information, they are key figures in the influence patterns. Educational effort directed to them should, therefore, pay greater dividends in terms of desired changes than effort spent elsewhere. This should be true irrespective of who or what agency directs the effort. It is also evident from the study that only the people in the community can supply the names of those who hold key positions in the influence patterns. No easy formula can be suggested for finding out who these people are. However, it is not safe to assume that they are the ones who are most willing to follow the lead of the county agent or other adult educators.

Further analysis of characteristic differences between farm operators seeking information and those sought revealed that the county agent provided the only instance among institutionalized sources of information where non-using operators were more inclined to seek advice from those who did use that source than from those who did not. It follows that the inter personal patterns of farm information exchange were such that more diffusion via the county agent route could be expected through the interpersonal information seeking patterns associated with users of county agents than through the interpersonal patterns associated with any other source. Just why this is true the writer is not in a position to say; nor is it known whether this condition would hold true in other localities. However, in this community it means that the county agent was in the most strategic position of all institutionalized agencies to reach farm operators indirectly through personal channels. Forty-one of the 102 non-users of institutionalized sources of farm information (40 percent) named a specific farmer as a personal source of farm information who had used a county agent. If the same proportion of the remaining farmers in the group who said that they got information from friends and neighbors but did not name a specific person actually sought one who did use a county agent, the above proportion would be raised to approximately half.

Since many of the farmers in this group, who may be interested in improving farm operations, are small operators and therefore not in a position to experiment, especially where financial risks are high, the more judicious course may be to wait for others to demonstrate the merits of new practices before pressing for adoption. It seems plausible that more can be accomplished by facilitating the influence of local leaders and the interpersonal exchange of farm information than by trying to reach all farmers directly by every means available in the hope that they will become immediate adoptors.

However, the prospects of reaching some, and perhaps even many of these farmers through institutionalized sources are good, provided recommendations center around felt needs or feelings of need that either exist or can be developed. About one-third of the non-user group were favorably disposed to the county agent and his work; i.e., they believed that he had something to offer and only a small proportion (7.5 percent) of those who were indifferent were indifferent because they felt the agent was not qualified to give competent advice. Slightly over half of the indifferent were indifferent merely because they felt they did not need the agent's assistance. This leaves a fertile field and perhaps not a too difficult one for the county agent to cultivate.

Another 21 percent indicated indifference because they felt that recommendations were not practical. Reaching people with this kind of attitude requires a somewhat different approach. Once favorable contacts are established, agents can, of course, supplement with printed materials from the College, another institutionalized source not used by this group.

Although the vocational agriculture teacher and his staff are not primarily adult educators, they have many opportunities to serve as such. If given required time and personnel they are in an excellent position to render personal assistance to farmers in the community. Ordinarily being located in community centers, they have the advantage of local accessibility. Parents come to these centers to attend many school and community functions where they have opportunities to meet and talk to members of the agriculture teaching staff. Veteran and non-veteran classes provide opportunities to talk to the teaching staff and to exchange ideas with other farmers. Additional contacts are provided with parents through supervision of FFA projects. Others who have no direct contact with the vocational agriculture teaching staff get information from their veteran trainees and vocational agriculture students, as indicated by 22 percent of the farmers in the survey community who got farm information from this source.

When members of the teaching staff are accepted as members of the community as they were in this community, they have the added advantage of speaking as trusted friends and neighbors. This gives their advice added weight. Although the 102 farmers labeled as non-users of institutionalized sources of farm information made no use of the vocational agriculture teacher and his staff, nearly 40 percent of them sought farm information from those who did. If the same proportion of remaining farmers in the group who said they got information from friends and neighbors but did not name a specific person picked one that used the vocational agriculture department, this proportion would be raised to approximately 50 percent.

### Implications for Research

Although some light was thrown on the function of particular sources of farm information and the acceptance of new farm practices, this represents

a general area of research which should be further pursued. Findings in this and other studies indicate that the usefulness of a source of information varies with subject matter and stages in the diffusion-use process.<sup>11</sup> The function and/or usefulness of sources should be considered in relation to subject matter, the nature of the change desired, and the stage of the diffusion-use process, as well as the characteristics of those to be educated.

In view of the great importance placed upon intimate associates as sources of farm information, their role in the diffusion-use process is of particular importance. In addition to matters of source-function which apply to all sources, the matter of interpersonal relations and the conditions or circumstances which structure such relationships must be considered. This includes all of those things relating to the individual and his situation which impede, obstruct, or structure interpersonal relationships and thus the opportunity for the exchange of farm information on a person to person basis.

Social structure must be considered in relation to its function in the diffusion-use processes. Adequacy of source-competence, which may be assumed for institutionalized sources and mass communication media, must be carefully evaluated in relation to competence of friend and neighbor sources. Characteristics reflecting competence and other factors related to the diffusion and use of farm information may vary with cultural conditions. This interposes the problem of defining these conditions and the limits within which generalizations can be made. Description of social areas<sup>12</sup> in terms of social-psychological characteristics of the people living with them might provide the needed basis for explaining variations in information-seeking behavior.

Within the network of interpersonal relations are farmers who are more frequently sought as sources of information than others and to whom others defer in their thinking. They represent key figures in the informal information exchange patterns. Qualities and characteristics pertinent to the diffus-

<sup>11</sup>Also see E. A. Wilkening, *Acceptance of Improved Farm Practices in Three Coastal Plain Counties*. Chapel Hill: Technical Bulletin 98, North Carolina Experiment Station, May 1952; *Adoption of Improved Farm Practices as Related to Family Factors*. Madison: Research Bulletin 183, Wisconsin Agricultural Experiment Station, December 1953; *Communication Agents and Technological Change Among Farmers*. (Paper read at the annual meeting of the Rural Sociological Society, Urbana, Ill., September 6-8, 1954.)

Bryce Ryan and Neal Gross, *Acceptance and Diffusion of Hybrid Seed Corn in Two Iowa Communities*. Ames: Research Bulletin 372, Iowa State College Experiment Station, January 1950.

<sup>12</sup>See C. E. Lively and C. L. Gregory, *Rural Social Areas in Missouri*, Columbia: Research Bulletin 414, Agricultural Experiment Station, University of Missouri. (April, 1948) for a statistical delineation of social areas in Missouri; also see C. L. Gregory "Advanced Techniques in the Delineation of Rural Regions", *Rural Sociology*, March, 1948. And C. E. Lively and C. L. Gregory, "The Rural Sociocultural Area as a Field for Research", *Rural Sociology*, March, 1954.

ion of farm information possessed by them may have considerable importance to educational planners. For example, if local leaders are merely purveyors of local tradition, the problem will be different than if they have status as innovators. A precise description of pertinent characteristics and of the role they play in the diffusion-use process would provide useful clues as to how they could be used for implementing social change. Simpler methods for locating the key people are also needed.

Limited data from this study show that conditioning factors in the use of specific sources of farm information are found within the value system of the people themselves. Important differences in the sets of basic values held by users and non-users of institutionalized sources of farm information were in evidence. A part of this difference probably stemmed from the fact that a high proportion of the non-user group either had reached or were nearing the age of retirement. At that time of life, new problems arise and old ones are viewed in different perspective.

Although this study has done little to conceptualize problems either of the aged or of non-user groups, some false assumptions concerning their interests can be ruled out. Perhaps due, in part, to the high proportion of aged, the non-user group was not greatly interested in new farm technology, especially that requiring extensive changes in farm operations; nor did they appear to be greatly interested in increasing the productivity of their farms. One may surmise that problems of health, security, and declining farm operations are paramount but a more precise definition and evaluation of their problems is needed. Research concerning the needs of aged farmers and the adjustment of farm operations to their declining physical energies, is especially important in view of the general aging of the farm population. On the other hand, many of the farmers who did not use institutionalized sources of farm information and who had adopted fewer than the average number of improved farm practices were small operators. A better definition of social psychological barriers to the acceptance of new farm practices by a small operator is needed.

There is the further consideration of why farmers use one kind of source in preference to another. Whether it is because of accessibility, the absence of threat to one's own sensitive ego on the one hand or to bolster it on the other, or to status factors or other considerations, is not known. Perhaps, more research directed to this end is needed.